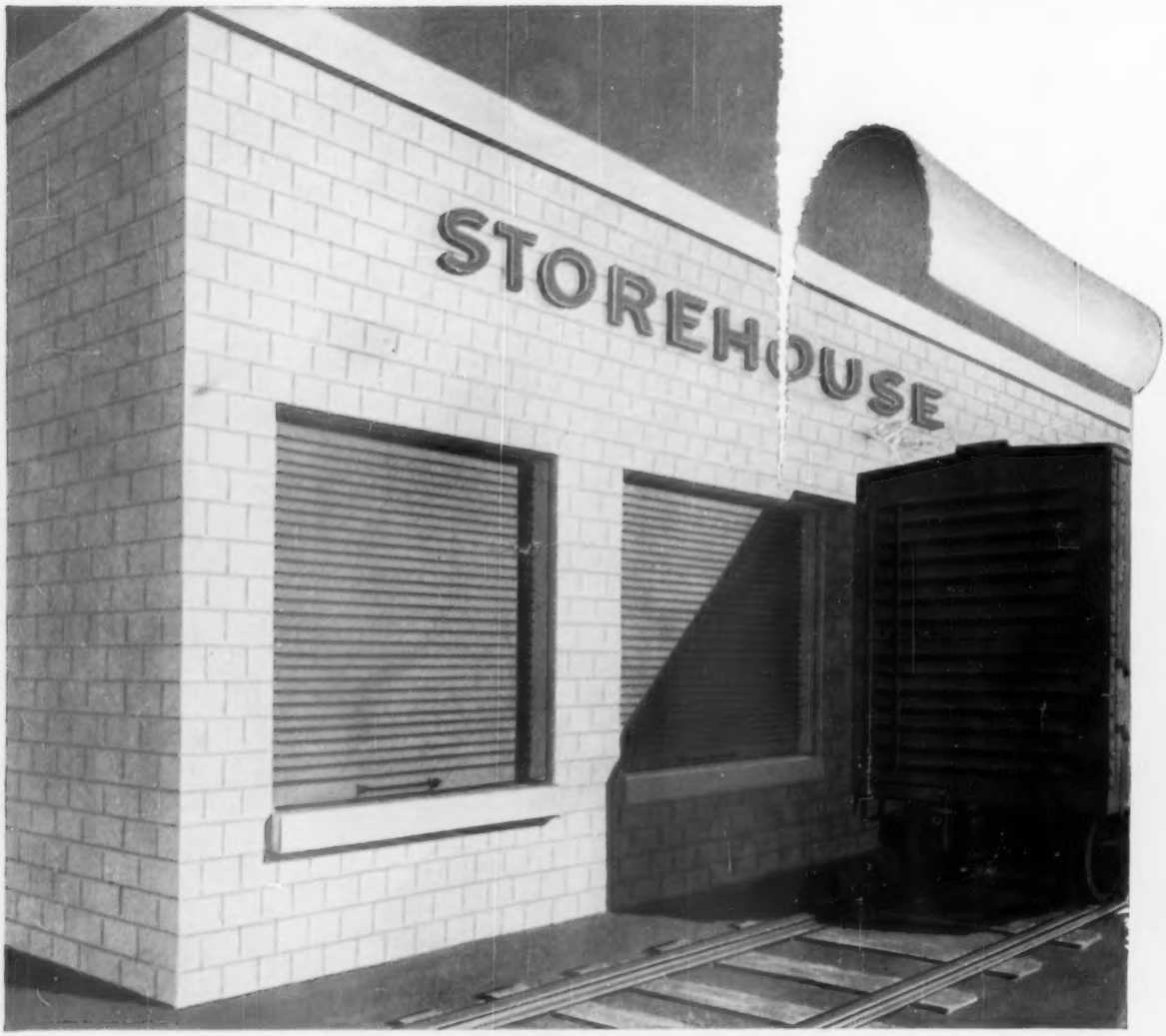
DECEMBER 27, 1954

Santa Fe Car Reporting . . . p. 31

RAILWAY AGE

One of Five Simmons-Boardman Railway Publications



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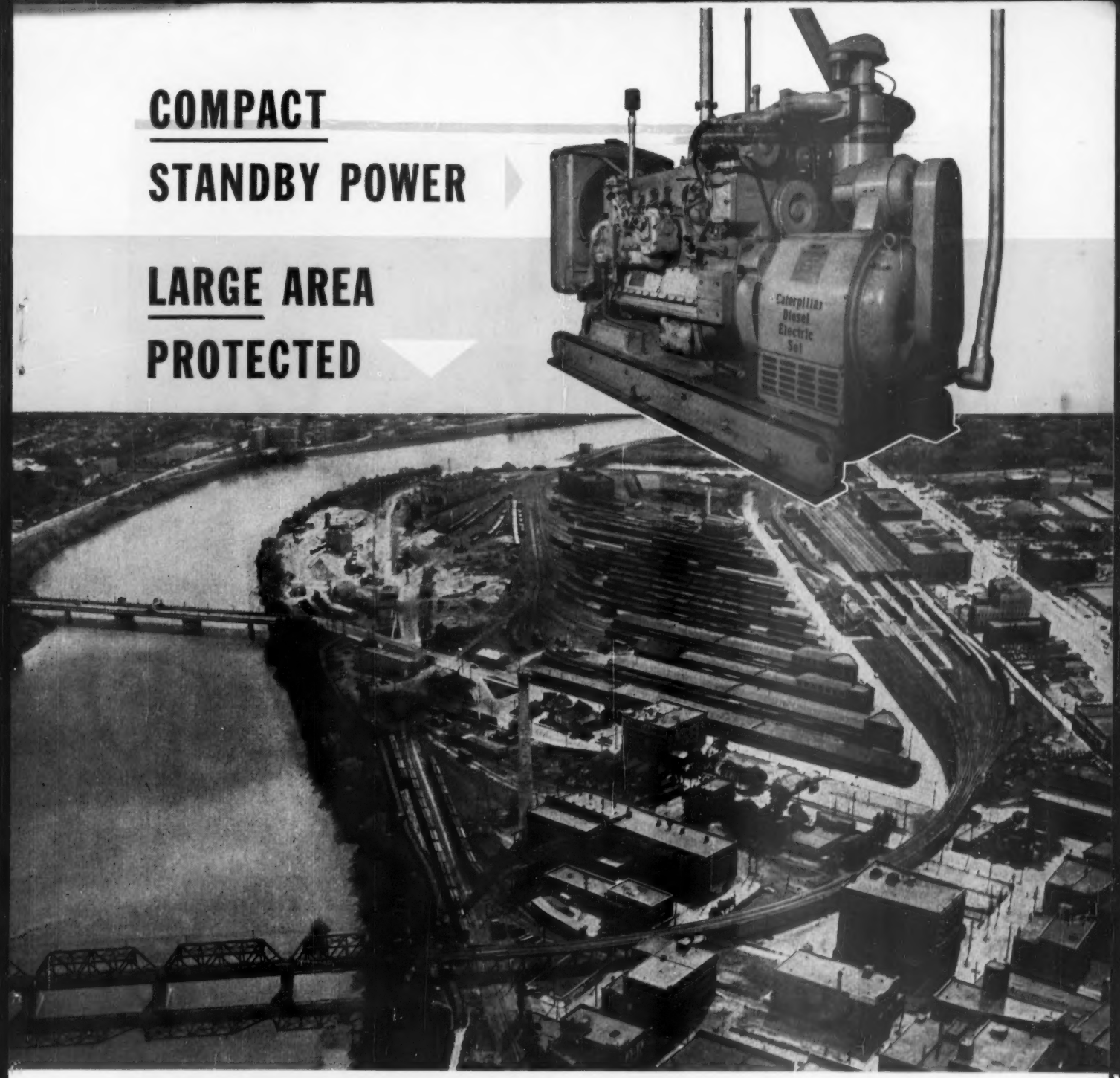

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The compact standby unit is installed in the railway's steam generating plant in the city yards. It stands ready to supply instant power to coal conveyors, forced and induced draft fans, stoker motors, boiler pumps and emergency lights.

With a dependable, self-regulated Caterpillar Electric Set, you can forget the troubles a power failure could cause. These sets can be started by manual, remote, and completely automatic systems. Cat Electric Sets can be started, reach operating speed and take over the load — all in a matter of a few seconds.

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And the operation of these self-regulating units is so simple that they require neither complicated switch gear nor a trained electrician.

Here is a power sentry that guards your operations *and* your costs. Your Caterpillar Dealer, an expert on power plants, is ready to prove the benefits of Cat Electric Sets. Have him show you the model that exactly fits your needs!

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

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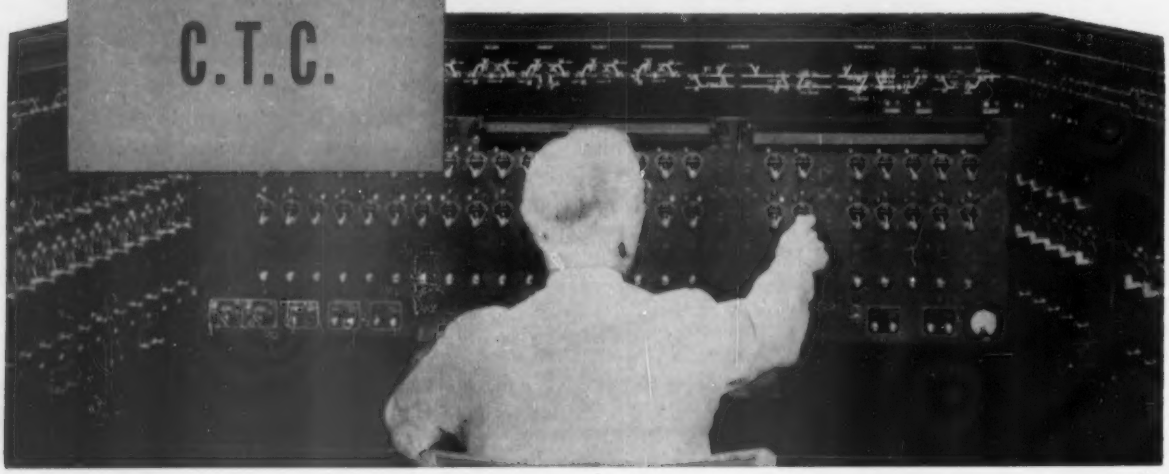

RAILWAY AGE

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December 27, 1954 **Vol. 137, No. 26**

Week at a Glance

Railroad prospects for 1955 look a little better than the realities of 1954, judging from year-end statements and annual forecasts of things to come. 8

A new composition brake shoe—the "Cobra" — developed jointly by Westinghouse Air Brake and Johns-Manville, is claimed to have many advantages. 13

FORUM—How to promote growth of traffic. Given freedom in pricing, and relief from discriminatory taxation and the obligation to play Santa Claus with regard to community services, the railroads can prosper by carrying their share of this growing nation's increasing traffic. 25

The Santa Fe values its apprentices—to the extent that it now has about 875 in 37 schools in 35 cities. Among the 6,500 graduates of this program are many of the road's officers. 26

New Frisco test laboratory at Springfield, Mo., to be ready for occupancy early next year, features 10 separate laboratories within one air-conditioned, attractive and functional building. 29

Better car reporting on the Santa Fe has been achieved with new carrier line circuits and Teletype designed to handle wheel report and car accounting traffic in addition to regular messages. 31

A rubber highway crossing has been installed, appropriately, at the world's "rubber center"—Akron, Ohio—on the Erie. 32

BRIEFS

If you are confused as to who is buying what kind of lightweight passenger train from whom—frankly, so are we! But out of the welter of rumors on the subject three probabilities emerge: (1) The Pennsylvania is a strong contender for the honor of being the first rail-

Enjoy a Car at Del Monte

Without the Long Drive Down . . Completely Relax on the Train and Then Have All the Advantages of Your Own Car While There . . A Unique Service at Minimum Cost

To Pebble Beach and Return

Hertz Drive-ur-self Stations

San Francisco Stations
55 TAYLOR · 901 BUSH · 137 POWELL
1054 MISSION · 175 TURK

TELEPHONE · PROSPECT 1000

True 28 years ago ...doubly true today

The Hertz Rail-Auto Plan is one sound, effective way to increase your passenger revenue!

Way back in 1926, when the Hertz advertisement above appeared in the San Francisco Chronicle and San Francisco Examiner, Hertz started helping to switch motorists to more relaxing, more enjoyable railroad travel. And in the light of rapidly increasing competition from inter-city driving, it's doubly true today: The Hertz Rail-Auto Plan is more vital than ever before in helping increase your railroad passenger revenue!

In 1953, the I. C. C. estimates indicate that motorists drove close to 500 billion miles between cities! Many of them drove hazardous, tiring miles, *only because they needed a car at their destinations.* By offering these motorists a fine, clean, new car at their destinations anywhere, the Hertz Rail-Auto Plan switches many highway miles to the railroads. And Hertz can prove it! *Last year alone, people who rented Hertz cars at their destinations actually traveled more than 136,000,000 miles on the railroads!*

Here's how you can switch more motorists to railroad travel with The Hertz Rail-Auto Plan!

1. TRY the Rail-Auto Plan yourself. See how courteous, convenient and economical Hertz service really is.

2. URGE your ticket agents to ask passengers this simple question: "*May I reserve a Hertz car for you at your destination?*" When permissible, the Hertz office that gets the business pays your agents 10% commission on the total rental charge.

3. DISPLAY this small attractively printed sign on the grill of your ticket agents' windows. "*Reserve your Hertz Rent-A-Car from your ticket agent.*" At no charge to you, Hertz provides these signs and passenger folders describing the Hertz Rail-Auto Plan.

4. MENTION the plan in your own advertising as an added inducement for persons to travel by rail. Use displays in your ticket offices. Advertise the plan in your timetables . . . on your billboards . . . on highway over-passes. This way, you will be taking advantage of the $1,000,000 Hertz spends every year in leading national magazines to advertise the Rail-Auto Plan.

AND REMEMBER THIS! Only Hertz. largest rent-a-car system in the world, can truly back up the Rail-Auto Plan, because wherever your passengers go, they will find a Hertz office.

More than 1,500,000 persons now hold Hertz Charge Cards and Courtesy Cards. This assures a steady business. Hertz also honors rail credit cards. And Hertz offers your passengers the finest, most courteous service . . . makes available to them more than 8,600 cars at nearly 850 offices in over 550 cities throughout the world. What's more Hertz furnishes all gasoline, oil . . . Public Liability, Property Damage, Fire and Theft Insurance, and $100.00 deductible collision protection—*at no extra cost!*

For more information about the Hertz Rail-Auto Plan, and for reservation forms or other display material . . . write, wire or phone the address below.

HERTZ *Rent-A-Car* **SYSTEM**

Dept. D12, 218 S. Wabash Avenue, Chicago 4, Ill.; phone: WEbster 9-5165

Current Statistics

Operating revenues, ten months	
1954	$7,779,882,274
1953	9,016,553,959
Operating expenses, ten months	
1954	$6,158,779,123
1953	6,780,942,483
Taxes, ten months	
1954	$ 740,059,728
1953	1,085,573,098
Net railway operating income, ten months	
1954	$ 671,488,608
1953	952,692,110
Net income, estimated, ten months	
1954	$ 472,000,000
1953	740,000,000
Average price railroad stocks	
December 21, 1954	85.73
December 22, 1953	58.49
Carloadings, revenue freight	
Fifty weeks, 1954	32,659,933
Fifty weeks, 1953	37,201,733
Average daily freight car surplus	
December 11, 1954	36,003
December 12, 1953	76,333
Average daily freight car shortage	
December 11, 1954	292
December 12, 1953	163
Freight cars on order	
December 1, 1954	14,805
December 1, 1953	31,869
Freight cars delivered	
November 1954	1,302
November 1953	6,137

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Departments

Week at a Glance CONTINUED

road to put such a train into operation; (2) General Motors *Corporation* is concerned with possible designs for such a train; and (3) the Transportation Development Corporation, New York, is reportedly working for the New Haven on the engineering and design of a train, which, if accepted by the railroad, would be built by the Grumman Aircraft Engineering Corporation, Bethpage, N. Y. If the design of that train, said to have a capacity of 256 passengers and to be capable of speeds of from 130 to 150 mph, is accepted, it has been stated to *Railway Age* that a complete train could be delivered by late 1955.

All hurdles in the way of a comprehensive Administration legislative program for transportation seem to have been surmounted—and, barring some unforeseen hitch, the new Congress should get this program from the White House relatively early in its forthcoming session. Rumors published in the daily press as to the content of this program are substantially correct—in that the main emphasis will be on reduced regulation of common carriers, to give them greater freedom in bidding for traffic they have been losing to contract and private transportation.

Railroad tonnage in 1954's first half was down from 1953 relatively twice as much as the intercity truckers' volume. Latest ICC figures show the latter off 6%, compared with the railroad drop of 13.9%.

New Haven bargain fares for women have proved so successful they may be extended beyond the originally planned eight weeks. Since December 1 the road has offered, each Wednesday, roundtrips to New York for the one-way price. Tickets sold: First week, 1,759; second week, 3,362; third week, 3,801.

Diesels may replace all steam locomotives on Mexico's railroads if present plans of our southern neighbor are carried out. Mexican officials are said to be negotiating with the Export-Import Bank for a loan that would make the changeover possible.

8 TIMES AROUND THE WORLD ...

FRICTION WEDGES

Because of large bearing areas, both flat and convex surfaces of the original wedges showed negligible wear at any point; wedges should last as long as the car

FRICTION MECHANISM STILL IN TOP CONDITION ...

PROOF OF THE NATIONAL C-1 TRUCK'S LONG LIFE

The "control center" of a smooth-riding freight truck is the friction control mechanism. Hence, wear life of this mechanism controls how long the truck will continue to give you what you paid for—a smooth, "lading-conscious" ride.

A recent control center inspection of National C-1 trucks, after 200,000 miles in rugged service, proves that the friction control mechanism is strong, powerful and long lasting—designed for the entire life of the car. Furthermore, the excellent condition of wheels, journals, bearings, and bearing wedges—all original equipment—shows that C-1 trucks hold maintenance costs to a minimum.

NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS · YOKES · DRAFT GEARS · FREIGHT TRUCKS · SIDEBEARINGS · PASSENGER TRUCK SIDE FRAMES

AAR Report on 1954 Results

Freight traffic off 10% from 1953—Passenger business down 7%—Earnings after charges one-third lower

By WILLIAM T. FARICY
President, Association of American Railroads

Railroad operations and results in 1954, as compared with 1953, may be summed up as follows:

Carloadings declined 12% to a total of 33,740,000. Freight traffic as measured in tons hauled one mile totaled 545 billion ton-miles, a decline of 10%, and passenger travel totaled 29.4 billion miles, a decline of 7%. For their services the railroads received gross operating revenues of $9,400,000,000, which was 12% less than in 1953. Operating expenses were reduced by 8%.

***Rate of Return*—Reflecting the importance of traffic volume as a factor in railroad results, the amount available for capital uses went down 27%, reducing the rate of return on net investment from 4.19% to 3%. Earnings after charges were $580,000,000, a decline of more than 33%.**

During the year the improvement of railroad plant and equipment continued, though at a lower rate than in recent years and 36% below 1953. Nevertheless, the $800,000,000 spent in 1954 carried total capital expenditures of the railroads since the close of World War II above the 10-billion-dollar mark. Of the amount spent during the year, $485,000,000 went for new equipment, including nearly 29,000 new freight cars and 1,070 new locomotive units, and $315,000,000 for improvements to roadway and structures.

***Earnings Set Pace*—The pace at which railroads can carry forward plans for further improvements will depend largely upon the course of future traffic, revenues and earnings. In the closing weeks of 1954 carloadings appeared to be leveling off when compared with loadings of the preceding year, indicating that traffic and revenues for 1955 should be above the 1954 level.**

Any substantial improvement in the position of the railroad industry, however, rests in great degree on positive action being taken to correct the inequities in public policies which handicap the railroads in meeting the competition of other forms of transportation. Other carriers are aided by government in many ways, such as by subsidies, promotion and less restrictive regulation. Freedom for all forms of transportation to compete on an equal basis is clearly vital to the future of the railroad industry and to the nation, which needs adequate and efficient railroad service to meet the demands of commerce and defense.

Henry Sees Better Year For Railroads in 1955

Conservative optimism marked a forecast for 1955 by a rail spokesman taking part in a press symposium on the business outlook conducted by the Chamber of Commerce of the United States at Washington December 16.

Robert S. Henry, vice-president, Association of American Railroads, expressed much the same viewpoint as that of AAR President William T. Faricy, reported elsewhere on this page. Rail revenues must depend, he said, on the general business situation, but a "leveling off" of the carloading decline in recent weeks gives "some ground for hope that 1955 revenues should be above those of this year."

More optimistic were the stands assumed by Neil J. Curry, president, American Trucking Associations, and Chester C. Thompson, president, American Waterways Operators, who saw 1955 as a year for continued progress in their respective fields.

An overall appraisal of the 1955 outlook offered by Emerson P. Schmidt, director of economic research for the Chamber of Commerce, indicated a swing back up from 1954 but not quite to the 1953 business peaks. He pointed out that tax cuts in 1954 had been greatly beneficial, saving individuals and business $7.5 billion, but foresaw no major tax reductions for 1955.

Mr. Schmidt envisioned increased unemployment and warned of intensified pressure from labor unions as indicated by "huge strike funds" accumulating. (Other non-transportation participants in the symposium predicted the steel and automotive industries would be hit by labor troubles with resulting widespread effects.)

Mr. Curry predicted that intercity ton-miles of truck service would rise by 4% to 216 billion in the coming year and said "another million new trucks may be produced and sold." He added that the trucking industry expects to spend $3 billion for equipment alone, an increase of $400 million over 1954. However, he said rising costs would occasion increases in rates.

Would Not "Release" Rails—The truckers' president went on to protest against the railroads being "released" from "restraints" which he said have kept the roads from "suppressing or swallowing highway freight competition." He declared the railroads are seeking to have Congress and the Administration remove these "restraints."

Mr. Thompson predicted "another big boost in the nation's waterborne commerce" for 1955, based to great degree on industrial development along waterways. Barge tonnage in 1954 was up to 380 million tons for a rise of 16% over the 1953 figure.

Shippers Vote on LCL Improvements

Seven-day operation of terminals, teamed with cross-town movement by truck between railroad transfers, are the major and most effective improvements adopted by railroads to better their lcl service.

This opinion was recently registered by a coast-to-coast panel of industrial traffic managers in a poll conducted by *Railway Freight Traffic*, companion publication of *Railway Age*. Panel members were asked to give their personal rating of the comparative importance of five improvements instituted by individual railroads in their attempt to halt the downward trend of lcl traffic. Of the listed improvements put into effect, these two were accorded 74% of first place votes.

The growing popularity of rail-shipper suggested routing plans also was recognized in the balloting, gaining third mention in importance by the railroads' customers. In fourth place the shippers placed the increased program of rail-billed piggyback service, while special equipment cars ("D-F," compartmentizers, etc.) were awarded fifth place.

All five points were duly credited with value, however, in the nationwide ballot.

In voting for the seven-day week as the most important improvement in the lcl field, George O. Griffith, director of traffic, American Home Products Company, and chairman of the executive board of the National Small Shipments Traffic Conference, declared:

"It is difficult to make a choice between the seven-day week and sug-

gested routing plans, but the former must be practiced if the latter is to succeed.

"The best and surest way to improve lcl merchandise service is for shippers, generally, to patronize railroads, even if they have to do so to their detriment in the form of slightly inferior service in the beginning. Surely railroads cannot be expected to operate cars on a satisfactory schedule for indefinite periods of time without adequate shippers' support in the form of tonnage. In this instance, I think the chicken (tonnage) should come before the egg (service)."

Public Relations

Wayne Johnston Disagrees

Terms talk of rail subsidy "gloom-and-doom philosophy"—Says answer is "to uphold philosophy of each business paying its own way"—UAL chief suggests rails "try subsidy"

"There have been signs in some quarters of giving up the battle to have all forms of transportation stand on their own feet," Wayne A. Johnston, president of the Illinois Central, told IC stockholders in a year-end message.

"There have been suggestions," he continued, "that since competitors of railroads receive benefits from the public purse, railroads too should receive handouts to meet subsidized competition. I believe this is a gloom-and-doom philosophy.

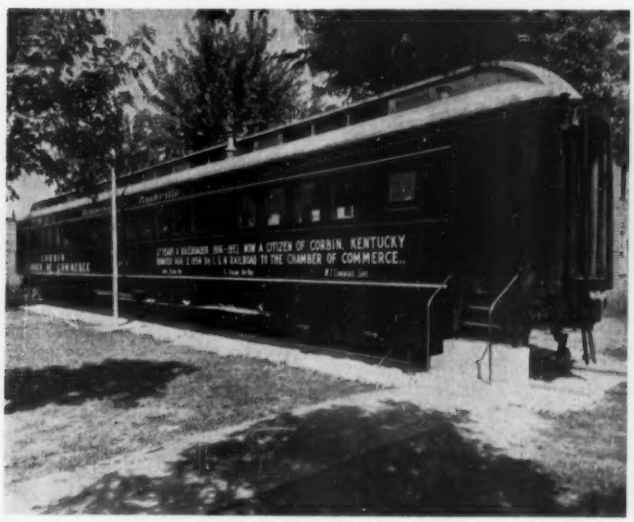
"We have been fighting an issue which is wrong in principle. To add another wrong by subsidizing railroads will not make a right. While the subject has been discussed by railroad people the nation over, the greatest fight is still ahead. It is a battle the railroads cannot afford to lose. Subsidizing railroads would be tantamount to closing the vise of nationalization not only of railroads, but of all transportation. It would be a repudiation of our heritage and traditions and would in effect be an admission that the private enterprise concept has been a failure. My answer is to fight with all our strength to uphold the philosophy of each business paying its own way."

Mr. Johnston said he "subscribed wholeheartedly" to the "courageous statement" of Interstate Commerce Commission Chairman R. F. Mitchell (*Railway Age*, November 29, page 15), who wants transportation regulatory laws changed "so rules will be the same for all." He added that "it is the hope of every railroad officer and stockholder that [the report of President Eisenhower's special advisory committee on transportation] will lead to all-out action for correction of abuses imposed by obsolete regulation under which railroads have been forced to operate. It is also hoped the report will recommend to the President that legislation be introduced compelling commercial users of public facilities to fully reimburse the public treasury for the cost of facilities provided them at taxpayers' expense."

Opposite Viewpoint — Views directly contrary to Mr. Johnston's were recently expressed in Chicago, however, by William A. Patterson, president of United Air Lines, when he said: "All forms of transportation, both local and national, should be strong and healthy even if it means turning to government subsidy." While railroads talk of subsidy in connection with progress of air transportation in the past 28 years, major air carriers "have been free of subsidy for the past several years," he asserted.

United's revenue, he said, is 89% passengers; 4.9% mail; 1.9% express and 3.7% freight; and added that "there was nothing harmful to railroads in these figures except the passenger percentage."

One Less "Thorn"? — "Railroads always have lost money on passenger business. We are just removing a thorn from their side," he commented, suggesting that railroads "stop their bickering" with regard to air line "domination of the passenger market and con-



ONE WAY TO USE AN OLD COACH

AFTER NEARLY 40 YEARS of service, this Louisville & Nashville coach (left) has been given what may be the only assignment of its kind in the country. Retired, but still on rails, it now serves as the office of the Corbin, Ky., Chamber of Commerce. En route to its new home (right) the car moved on temporary trackage laid right in Corbin city streets. Prior to its donation by the L&N, the car was completely renovated and repainted and its seats were removed. The car is air conditioned and has been permanently connected to city water and electric power lines. A center compartment, once used as a conductor's office, is now used as a storeroom. One end of the car serves as an assembly room; the other end does duty as an office.

centrate on building freight service instead."

"Air lines can never compete with railroads in carrying cargo," he stated. "Our place in transportation is passengers, emergency freight shipments and air mail. Let railroads concern themselves with freight and mail."

No Subsidy? — As Mr. Patterson spoke, representatives of the city of Chicago and various air lines serving that city were still trying to iron out a long-standing disagreement over airport landing fees and removal of some of the present commercial air traffic from overcrowded Midway airport to the larger O'Hare field (*Railway Age*, August 10, 1953, page 8).

The lines are reluctant to move to the larger field because charges at Midway amount to only 4 cents a thousand pounds for each takeoff. The city says a minimum fee of 20 cents per thousand pounds per takeoff is necessary if O'Hare field is going even to earn its operating costs. Such a figure makes no provision for retirement of $20 million already invested in the O'Hare facilities, nor the $30 million more that will be needed to turn it into Chicago's principal air terminal —which the city would like to do.

It is understood that the air lines' contract committee has "offered" the city a very slight increase over the Midway rates for traffic transferred to the newer field.

Figures of the Week

Freight Car Loadings

Freight car loadings for the week ended December 18 were not available when this issue of *Railway Age* went to press.

Loadings of revenue freight for the week ended December 11 totaled 653,531 cars; the summary for that week, compiled by the Car Service Division of the Association of American Railroads, follows:

REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, December 11

District	1954	1953	1952
Eastern	107,746	112 103	125,775
Allegheny	117,832	126,737	144 057
Pocahontas	50,511	47,485	56 316
Southern	120,778	117,311	131,250
Northwestern	79,516	73,745	81,670
Central Western	119,162	116,666	122,418
Southwestern	57,986	57,904	59,856
Total Western Districts	256,664	248,315	263,944
Total All Roads	653,531	651,951	721,342
Commodities:			
Grain and grain products	48,514	42,645	46,746
Livestock	9,980	9,310	10,195
Coal	127,476	119,409	141,161
Coke	9,287	11,112	14,845
Forest products	43,672	38,963	43 856
Ore	15,528	16,852	21,072
Merchandise l.c.l.	61,349	62,761	70,693
Miscellaneous	337,705	350,899	372,774
December 11	653,531	651,951	721,342
December 4	661,797	662,026	719,324
November 27	583,515	596,230	670,371
November 20	697,346	725,732	811,073
November 13	708,757	727,058	828,750
Cumulative total 50 weeks	32,659,933	37,201,733	36,754,065

Actual and Estimated Gross Capital Expenditures—Class I Line-haul Railways

Period	Number of roads	Expenditures for road	Expenditures for equipment	Total
		Thousands	Thousands	Thousands
Actual:				
January–September 1953	130	$285,307	$646,169	$931,476
October–December 1953	130	116,594	211,724	328,318
Total 1953	130	401,901	857,893	1,259,794
Total 1953 adjusted[1]	126	394,629	843,526	1,238,155
January–September 1954	130	226,519	420,500	647,019
Estimated:				
October–December 1954[2]	126	78,171	81,929	160,100
Actual and estimated:				
Total year 1954	..	304,690	502,429	807,119
Actual:				
First quarter 1954	130	72,633	167,460	240,093
Estimated:				
First quarter 1955[3]	126	60,587	105,773	166,360
Per cent of change:				
January–September 1954 vs. same period in 1953 (actual)	..	−20.6	−34.9	−30.5
Year 1954 (actual and estimated) vs. 1953 adjusted	..	−22.8	−40.4	−34.8
First quarter 1955 (estimated) over same period in 1954 (actual)	..	−16.6	−36.8	−30.7

1 Total figures adjusted to eliminate fourth quarter 1953 expenditures of four roads which did not furnish estimates for the fourth quarter of 1954.
2 Estimates for the fourth quarter of 1954 were not furnished by four roads. In the same quarter of 1953 these carriers made expenditures of $7.3 million for road and $14.4 million for equipment.
3 Estimates for the first quarter of 1955 were not furnished by four roads. In the same quarter of 1954 these carriers made expenditures of $3.0 million for road and $2.9 million for equipment.

1954 Capital Outlays Will Top $807 Million

Gross capital expenditures made by Class I line-haul railroads in 1954 are expected to total more than $807 million, the Bureau of Transport Economics and Statistics, Interstate Commerce Commission, reported in its December "Monthly Comment."

The $807 million figure includes actual expenditures made by all Class I roads from January through September, plus estimated expenditures for the fourth quarter which were supplied by all but four roads. The four roads which failed to submit estimates for the final quarter of 1954 made actual expenditures of $21.7 million in the like period of 1953.

The table just above, reproduced from the "Comment," compares 1954 figures with those for 1953. It also contains estimated expenditures for the first quarter of 1955.

Index of Unit Prices of Railroad Fuel, Materials and Supplies, and Composite Index of Unit Prices and Wage Rates*

Average 1947-1949=100
Railways of Class I in the United States

Year	Index of charge-out prices of materials	Index of wage rates	Combined index of prices and wages
1939	52.0	56.5	55.2
1940	52.7	56.6	55.4
1941	55.2	58.7	57.7
1942	60.0	63.7	62.6
1943	64.5	68.2	67.1
1944	67.5	71.0	70.0
1945	69.3	71.2	70.6
1946	75.4	85.3	82.3
1947	88.8	89.7	89.4
1948	104.7	100.2	101.6
1949	106.4	110.0	108.9
1950	105.7	a120.5	116.1
1951	117.5	a134.1	129.1
1952	119.1	a140.8	134.3
1953	122.0	144.2	137.5
1954	b124.2	b148.1	b140.9

*Source: Bureau of Railway Economics, Association of American Railroads.
a. Includes retroactive pay increase.
b. Partly estimated.

Operations

NYC Adds More Trains To Fast Freight Service

New York Central's new fast through freight service from the west to New York has been expanded to four daily trains (*Railway Age*, December 6, page 10). Three of the four end their runs at 33rd street, New York City. The latest train—which carries meats, produce, automobile parts and other general freight from cities in the road's "Big Four" territory to New York—bears the time-card symbol "B-NY-4."

The train is assembled for 6 o'clock departure nightly from Bellefontaine, Ohio. After picking up additional cars at Cleveland, the trains stops only for crew changes and icing before its scheduled arrival in New York at 7 o'clock the following night. Its initial run was made December 15-16.

Pullman Company Closes All Five Repair Shops

Starting the last week in December, and continuing for an indefinite period of time "but at least through the first three weeks of January," the Pullman Company will close all its heavy car repair shops, Fred J. Boeckelman, manager of employee relations, has revealed.

Affected shops are at Chicago, Buf-

CAR SERVICE RULES NEED MUCH MORE OBSERVANCE

"There remains a considerable distance to go to reach the level of over 80% observance of Car Service Rules, which was usual in years prior to World War II.

"If observance of Car Service Rules represents the best and most economical method of handling the nation's freight car fleet which it has been possible for practical railroad men to develop over the years, as has repeatedly been said by rail executives, then renewed effort must be made to regain or exceed the prewar level of Car Service Rules observance. The proper ownership car must be put in the proper spot for loading in every practicable instance, even though this may mean added supervisory effort and switching at the loading station."

—From the 1954 annual report of the Car Service Division, AAR.

falo, St. Louis, Wilmington, Del., and Richmond, Cal. Mr. Boeckelman said the closing is due to a general decline in traffic. The close-down will have no effect on repair operations carried on in various passenger car yards but is limited to "heavy" repair work. He said the seasonal fluctuation of holiday travel would not be affected by the move.

Law & Regulation

Metallizing to Build Up Axles Gets ICC Frown

The Interstate Commerce Commission has indicated its view that use of "metallizing" to build up worn axles is akin to use of fusion welding, which is a method of reclamation "not in accordance with recognized practice of the Association of American Railroads."

The commission has also suggested that the "severe service conditions" to which axles and wheels on diesel-electric locomotives are subjected may well point up "a need for more frequent testing and determination of a safe life expectancy for such axles."

Broken-Axle Accident—These expressions of the commission were in a report (No. 3594, by Commissioner Clarke) on its investigation of the September 22 derailment of the Santa Fe's Train No. 2, the "San Francisco Chief," near Orwood, Cal. The commission found that a broken axle caused the accident, which resulted in injury of 40 passengers, 18 dining-car employees, and one train-service employee.

The axle was part of a driving-wheel set on the third unit of the train's four-unit diesel-electric locomotive. The break which caused the derailment was at one of the journals, and the axle was also cracked in the adjacent wheel seat. Laboratory tests of the axle material "indicated that the chemical composition met the specification requirements, but the yield strength was below the minimum specification requirement," the commission said.

Built Up—Since it had first been placed in service, wheels had been remounted on the axle four times, the last at 994,373 miles of service. "The failed journal," the report said, "had been built up by use of the metal spraying process which extended into the fillet. This metallizing had broken from the axle surface near the fractured face." In either the metallizing or fusion-welding processes, the report said, "concealment of any existing surface defects is equally effective."

Meanwhile, however, the commission conceded that its investigation in the present case left it unable to determine whether there were any incipient defects at the time the metallizing was applied.

AAR Rule—The "recognized practice" of the AAR to which the report referred is the rule that condemns restoring worn-out axles to original size by welding (with the exception of building up the end collars). Also cited was a previous commission pronouncement which called use of fusion welding on axles a "pernicious practice." The suggestion that axles on diesels should be tested more frequently came at the end of the commission's report, preceded by this comment:

"The axle which failed had during its service life had five pairs of wheels mounted upon it and had accumulated nearly one and one-third million service miles prior to failure. Development of the progressive fracture that culminated in failure of the journal and of the progressive fracture in the adjacent wheel seat strongly indicates that the axle had been continued in service beyond the endurance limit of the metal."

Education

Lacey, Heileman Will Direct AU Institutes

Edward F. Lacey and Major General F. A. Heileman will be directors, respectively, of the Seventh Institute of Industrial Transportation and Traffic Management and the Ninth Rail Transportation Institute to be conducted at the American University, Washington, D. C.

The traffic management institute will be held in January and the rail institute in March. The institutes were formerly directed by the late Dr. L. M. Homberger, who was professor of transportation at the university.

Mr. Lacey was formerly executive secretary of the National Industrial Traffic League. Since his retirement from that position in November 1952, he has been secretary of the Transportation Council for the Department of Commerce. General Heileman, now retired from the Army, was formerly its chief of transportation. He is now transportation consultant in the Department of Defense.

RESTYLING OF PAINT DESIGN and lettering are giving Pennsylvania freight cars a "new look" as they move through paint shops. On the newly painted box car (upper left) the traditional PRR keystone is nearly five feet high—almost three times its previous 21-in. height—and is set off from the red of the body by broad black shadow lines. The road's name is in white letters 13 in. high, nearly twice the old size, and car numbers are enlarged from seven to nine in. Covered hopper cars, formerly red, are being repainted light gray, with black keystone and lettering. Both new designs were worked out by Alfred C. Strasser, PRR art director, who is now developing adaptations for other types of freight cars.

People in the News

Keller Succeeds Hawthorne

William M. Keller, director of research, Mechanical Division, Association of American Railroads, will become the division's executive vice-chairman and director of research on January 1. He will take over the vice-chairmanship as successor to Vaughn R. Hawthorne, who will retire December 31 (*Railway Age*, December 13, page 71).

William M. Keller

Mr. Keller, a native of Pittsburgh and an engineering graduate of Pennsylvania State College, entered railroad service in 1919 as apprentice machinist with the Pennsylvania. In 1945, he was promoted to assistant mechanical engineer in charge of research, a post he retained with the PRR until he joined the AAR in 1952.

HAROLD F. HAMMOND will become executive vice-president of the Transportation Association of America on January 15 (*Railway Age*, December 13, page 71). Mr. Hammond has been manager of the Transportation and Communication Department of the Chamber of Commerce of the United States for the past seven years.

Labor & Wages

Emergency Board Report Delayed

President Eisenhower has extended to February 1 the deadline for the Emergency Board to report to him on the dispute between the railroads and the Order of Railway Conductors & Brakemen (*Railway Age*, November 29, page 8). The report originally was scheduled for December 22 but, the White House reported, the roads and union both requested the extension. The dispute involves a demand for graduated pay based on weight on drivers of the locomotive.

Rates & Fares

Tariff Group Issues 14th Progress Report

The Railroads' Tariff Research Group has issued its fourteenth progress report which includes Tariff Improvement Bulletins 73 to 78, inclusive, and supplements to two previous bulletins.

The bulletins and supplements prescribe tariff specifications which were approved at the latest joint meeting (in New York on November 15 and 16) of the railroads' Administrative Committee and the Cooperating Committee of the National Industrial Traffic League. They went to tariff publishing agents and tariff publishing officers of individual railroads.

Bulletin 73 relates to agency tariffs and affects only the railroads. It directs publishing agents to notify railroads 30 days in advance of intention to issue or reissue a tariff. This will afford the carriers sufficient time to determine their requirements for copies.

Rules "Revolution"—Bulletin 74's specifications will bring about "a major revolution in the make-up of the 'rules' sections of rate tariffs," according to the group's summary statement. The specifications are to be complied with in the issuance of new tariffs and the reissue of present tariffs. This plan is further developed in the presently-issued supplements to previous bulletins. These are Supplement 5 to Bulletin 21 and Supplement 1 to Bulletin 27.

Bulletin 75 establishes policies with respect to commodity lists or descriptions published in tariffs other than the one providing rates or ratings. Bulletin 76 directs tariff makers to embark on a program to conform, progressively, the territorial scope of general commodity tariffs to the territorial scope of the corresponding class rate tariff as a maximum.

Bulletin 77 directs that, when an alternation is to be permitted, both ratings be published in the same exceptions item. Bulletin 78 promulgates "standard principles of rule-writing" to govern rate makers and tariff makers.

Organizations

Space at NRAA Exhibit Requested by 101 Firms

Directors of the National Railway Appliances Association met December 14 to assign space to 101 firms which had applied for 251 booths in the exhibition to be held March 14-17, 1955, at the Coliseum, Chicago, concurrently with the annual convention of the American Railway Engineering Association at the Palmer House, March 15-17. Participants in the show will include many firms which have not previously shown their materials during the March exhibitions.

NRAA officers state that desirable space is still available. Interested firms which want to show new and improved appliances and work equipment for use by railroad maintenance of way and structures forces should communicate with Lewis Thomas, director of exhibits, 59 East Van Buren street, Chicago 5.

Companies that have requested space are:

Achuff Railway Supply Company; Air Reduction Sales Company; Allied Chemical & Dye Corp.; American Brake Shoe Company, Ramapo Ajax Division; American Chemical Paint Company; American Hoist & Derrick Co.; Armco Drainage & Metal Products, Inc.; Austin-Western Company.

Baldwin-Lima-Hamilton Corporation Car Department, Eddystone Division; Barco Manufacturing Company; Bernuth, Lembcke Company; Binks Manufacturing Company; Bird & Son, Inc.; Blaw-Knox Company; R. H. Bogle Company; Briggs & Stratton Corp.; Buda Company; Bumpers, Inc.; F. Burkart Manufacturing Company.

Camef Equipment Corporation; Caterpillar Tractor Company; Chicago Pneumatic Tool Company; Chipman Chemical Company; Cullen-Friestedt Company.

Dearborn Chemical Company.

Eaton Manufacturing Company; Electric Tamper & Equipment Co.; Enterprise Railway Equipment Company.

Fabreeka Products Company; Fairbanks, Morse & Co.; Fairmont Railway Motors, Inc.

Gary Slag Corporation; Golden Anderson Valve Specialty Company.

Brice Hayes Company; Hayes Track Appliance Company; Homelite Corporation; Hubbard & Co.

Industrial Brownhoist Corporation; Ingersoll-Rand Company; International Harvester Company.

U. S. RAIL FAN TRIP TO EUROPE

A three-weeks' trip by air to England next October for the purpose of looking over British railroads—and perhaps railroads in selected countries on the Continent—is planned for October 1955 by the New York Division of Railroad Enthusiasts, Inc. The total cost is expected to be under $600. A. T. Knowles, Post Office Box 25, Wall Street Station, New York 5, is in charge.

Jackson Vibrators, Inc.; Johns-Manville Sales Corporation; O. F. Jordan Company.
Kalamazoo Manufacturing Company; Kershaw Manufacturing Company; Keuffel & Esser Co. of New York; Koehring Company.
W. W. Lee & Son; Lehon Company; LeRoi Company; LeTourneau-Westinghouse Company; Linde Air Products Company, Railroad Department; Locomotive Finished Material Company.
Maintenance Equipment Company; Mall Tool Company; Massey Concrete Products Company; Master Builders Company; Matisa Equipment Corporation; Mid-West Forging & Mfg. Co.; Modern Railroads Publishing Company; Morrison Railway Supply Company; Motorola, Inc.
National Aluminate Corporation; National Lock Washer Company; Nichols Engineering Company; Nordberg Manufacturing Company; Northwest Engineering Company; Northwestern Motor Company.
Oliver Iron & Steel Corp.; D. W. Onan & Sons Inc.
P. & M. Co.; Permamix Corporation; Pettibone Mulliken Corporation; Pocket List of Railroad Officials; Pullman-Standard Car Manufacturing Company, Track Equipment Department.
Q & C Co.
Racine Hydraulics & Machinery, Inc.; Rail Joint Company; Railroad Rubber Products, Inc.; Rails Company; Railway Ballast Conditioning Company; Railway Maintenance Corporation; Railway Purchases & Stores; Railway Track-work Company; Reade Manufacturing Company; Rust-Oleum Corporation.
Schramm, Inc.; Security Locknut Corporation; Simmons - Boardman Publishing Corporation; Sperry Products, Inc., Sperry Rail Service Division.
Teleweld, Inc.; Templeton, Kenly & Co.; Timber Engineering Company; True Temper Corporation.
United States Steel Company.
Warner & Swasey Co., Grandoll Division; Western Railroad Supply Company; White Manufacturing Company; Wisconsin Motor Corporation; Woodings-Verona Tool Works; Woolery Machine Company.

The 56th annual meeting of the **Signal Section, Association of American Railroads,** will be held at the Jung Hotel, New Orleans, October 11-13, 1955. Officers of the section for next year are T. W. Hays, general signal engineer, Union Pacific, chairman; E. N. Fox, engineer signals and telegraph, Boston & Maine, first vice-chairman; and A. L. Essman, chief signal engineer, system, Burlington, second vice-chairman. H. A. Scott, assistant chief signal engineer, system, New York Central, and J. L. Weatherby, signal engineer, Texas & Pacific, have been elected members of the Committee of Direction for terms expiring December 1958.

The annual dinner of the **Traffic Club of St. Louis** will be held January 11, at the Jefferson Hotel. Dr. Kenneth MacFarland, educational consultant and lecturer for General Motors Corporation, will be guest speaker.

The 31st annual meeting of the **Atlantic States Shippers Advisory Board** is scheduled to be held at the Bellevue-Stratford Hotel, Philadelphia, January 19-20.

Newly elected officers of the **Railway Club of Pittsburgh** are: President, A. P. Everstine, secretary-treasurer, Schaefer Equipment Company; first vice-president, W. T. Elmes, business manager, University of Pittsburgh; and second vice-president, B. W. Tyler, assistant to vice-president, Pennsylvania.

Marshall O. Culton, general agent of the Chicago, Indianapolis & Louisville, is the newly elected president of the **Transportation Club of Seattle.**

Equipment & Supplies

Westinghouse, J-M, Announce New Brake Shoe

A new type of brake shoe, made of a new patented material and said to be capable of bringing railroad trains to quicker and safer stops, has been announced by Westinghouse Air Brake Company and Johns-Manville Corporation.

The two manufacturers have formed an equally owned company to produce the new "Cobra" brake shoe, and sell it for use on new and existing rail cars. They claim the development will cut operating costs and permit smoother stops.

The new material is described by its makers only as a composition substance with an organic binder and metallic particles. Its use for brake shoes, the companies say, will:

- Mean a passenger car will need only about one-fourth the braking force now used, thus permitting simpler and lighter brake riggings;
- Produce longer mileage life than current brakes, bringing about a two-thirds cut in man-hours needed to replace present shoes;
- Bring weight of brake shoes to less than half that of present ones, cutting the manual effort needed to replace them and saving as much as 3,000 lbs. a car in some cases;
- Provide uniform friction, doing away with lurches at the end of a stop and giving passengers a smoother ride; and
- Provide a brake shoe just as efficient in wet as in dry weather.

The new jointly owned company, Railroad Friction Products Corporation, plans to make its product first for passenger equipment, but hopes to produce it for freight trains later. The new "Cobra" shoes will be built for locomotives as well as cars, and prices reportedly will be slightly higher than current equipment. The difference, it is said, will be more than made up by the new shoe's longer life.

Headquartered at Wilmerding, Pa., the new company is headed as president by William C. Landis, who will retain his post as vice-president and general manager of Westinghouse Air Brake's Air Brake Division. Vice-president will be Raymond P. Townsend slated to continue as vice-president of Johns-Manville Sales Corporation and manager of the transportation industry department.

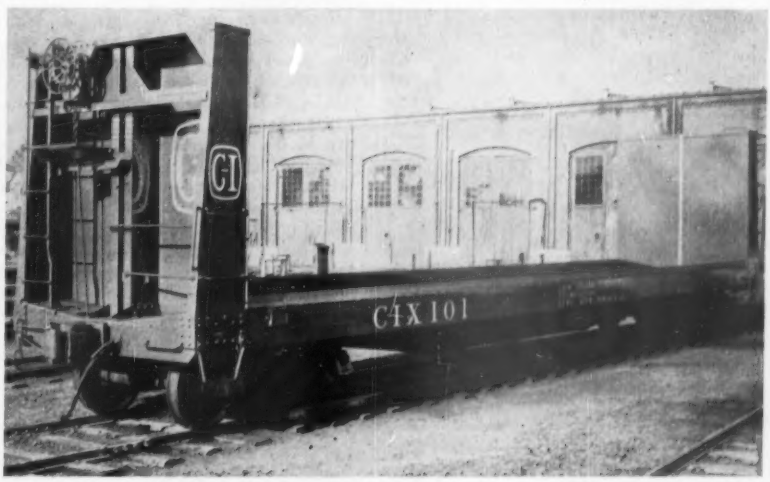
Initial responsibility for getting "Cobra" shoes into commercial production will lie with Johns-Manville, while Westinghouse will merchandise and sell the product. More development work will be carried on by the research organization of the two companies, and funds needed for the project will be advanced by both, an announcement said.

FREIGHT CARS

1,302 New Freight Cars Delivered in November

New freight cars delivered in November for domestic use totaled 1,302, compared with 1,817 in October and 6,137 in November 1953, the American Railway Car Institute and the Association of American Railroads have announced jointly.

Orders for 3,754 new freight cars were placed in November, the announcement said, and the backlog of cars on order and undelivered December 1 was 14,805, compared with 12,853 on November 1. A breakdown by type of cars ordered and delivered in November, and of cars on order



ONE OF 18 NEW PULPWOOD CARS just completed in the Boston & Maine's Concord, N.H., shops. Of the cars, first to be built in the shops since 1941, 12 are for the B&M and six for the Champion International Paper Company. The units are painted "fire engine red" and those for the paper company bear the firm's insignia, a monogrammed "C-I."

December 1, appears in the accompanying table.

Type	Ordered Nov. '54	Delivered Nov. '54	On Order Dec. 1, '54
Box—Plain	1,911	835	7,865
Box—Auto	0	0	300
Flat	50	0	719
Gondola	250	19	1,218
Hopper	750	0	1,100
Covered Hopper	0	48	669
Refrigerator	650	111	1,852
Tank	125	280	894
Caboose	0	0	57
Other	18	9	131
TOTAL	3,754	1,302	14,805
Car builders	2,586	617	8,677
Railroad shops	1,168	685	6,128

Supply Trade

Edward J. England, has been appointed executive vice-president of the **United States Railway Equipment Company** at Chicago.

The industrial products line of **North Electric Manufacturing Company** has been augmented by addition of certain products of the **L. M. Ericsson Company** of Stockholm, Sweden, with which it is affiliated. The products, including telephone instruments, intercom systems and associated equipment, were formerly represented by the **Ericsson Corporation of New York.**

Donald S. Day, assistant general freight agent of the Erie, has been appointed to the newly created position of assistant general traffic manager of **Youngstown Sheet & Tube Co.,** effective January 1.

Camef Equipment Corporation, Chicago, has been appointed representative for **Markal Company** and **Lake Chemical Company** to railroads operating out of Chicago and St. Louis.

D. B. Frampton & Co. and **Pittsburgh Screw & Bolt Corp.** have formed a new, jointly owned company, **Edge Grain Timber Products, Inc.,** to manufacture and market their new edge grain laminated wood product, "Doweloc."

John Krause, Jr., has joined **Pittsburgh Screw & Bolt Corp.** as assistant to general manager of sales. He was formerly assistant general manager of sales of **Oliver Iron & Steel Corp.**

Leo T. Duffy, of the **Railway Repair & Supply Co.,** has been appointed manager of railway sales in the Chicago district for **Union Spring & Manufacturing Co.**

National Aluminate Corporation has acquired the business of **Spray Services, Inc.,** Huntington, W. Va. The acquisition will extend Nalco service on weed control into the South and Southeast. **John P. Quarles,** formerly president of Spray Services, has been named assistant vice-president of Nalco. He will retain managership of the newly acquired facility, which will be known as Spray Services department of Nalco's railroad division.

OBITUARY

Duncan W. Fraser, 79, who retired as chairman of the board of American Locomotive Company in April 1954, died December 20 at Harkness Pavilion of Columbia Presbyterian Medical Center, New York.

George A. Murphy, Sr., 73, retired vice-president and consultant of Magnus Metal Corporation, died at Chicago December 16.

Ernest Kuehn, 69, retired Pacific Coast regional manager of the Electro-Motive Division of General Motors Corporation, died December 8 at Indio, Cal.

Financial

New York Group Would Buy B&O Segments in N.Y., Pa.

Four branch lines of the Baltimore & Ohio in western New York state and Pennsylvania would be operated as a 97-mile short line road under an application filed with the ICC.

The Wellsville, Addison & Galeton, incorporated for the purpose of completing the transaction, has asked authority to buy the segments, facilities and equipment from the B&O for $250,000. The lines run from Addison, N. Y., to Galeton, Pa., 45.8 miles; Galeton to Wellsville, 36.9 miles; Galeton to Burrows, 5.9 miles; and from Gaines Junction to Ansonia, 8.6 miles. All trackage but that between Addison and Galeton is in Pennsylvania. Six steam locomotives are included in the equipment to be purchased.

The WA&G also proposes to issue 1,000 shares of no-par stock to Murray M. Salzberg, Meyer P. Gross and Morris H. Snerson, who would control the new road as its sole stockholders. The three men described themselves in their application to acquire control as New York businessmen who have been active in management of other short line properties.

Capitalization in 1953 Only 59.5% of Investment

Total capitalization of the railroads as of December 31, 1953, was only 59.5% of their investment in road and equipment.

This was pointed up by figures made public by the ICC's Bureau of Transport Economics and Statistics in its "Monthly Comment." The compilation showed the investment (before depreciation) in road and equipment at $31.87 billion and the capitalization at $18.95 billion. These compare, respectively, with 1952's year-end figures of $31.23 billion and $19.32 billion, the capitalization-to-investment ratio having then been 61.9.

After Depreciation—If the 1953 investment figure be reduced by the amount of accrued depreciation and amortization of defense projects, the capitalization-to-net-investment ratio for that year would become 76.1. The 1953 capitalization figure of $18.95 billion included $10.06 billion of debt and $8.89 billion of stock.

GOLD COLORED PASSES were tendered as souvenirs to passengers aboard Chicago & Eastern Illinois Train No. 4 between Evansville, Ind., and Terre Haute on November 27. The passes (and the costumes of Conductor George Griese and Hostess Sharyn Fink) marked observance of the centennial of the first passenger train between those two cities. The 110 mi run took about 10 hours in 1854; the C&EI streamliner makes the run in two.

NYC Submits Plan to Control B&A to ICC

The plan of the New York Central to acquire control of the Boston & Albany, as reported in *Railway Age* November 29, page 12, has been submitted to the Interstate Commerce Commission for approval.

In an accompanying application, the Alleghany Corporation asked the commission to pass on the plan with the statement that while the Central will raise its bonded indebtedness through the transaction, this would be "more than offset" by reduced net rentals and taxes. "Substantial savings will

result," the Alleghany brief declared.

The Central would acquire control of the B&A, the Pittsfield & North Adams and the Ware River through exchange of NYC bonds for stock in the three roads, each of which is leased by the Central.

The application before the ICC seeks authority to issue $37,500,000 of NYC collateral trust 6% bonds to be exchanged for 250,000 shares of B&A stock at the rate of one $150 bond for each share; $377,800 of NYC collateral trust 5¼% bonds to be exchanged for 3,778 shares of P&NA stock at the rate of one $100 bond for each share; and $937,500 of NYC collateral trust 5¾% bonds to be exchanged for 7,500 shares of WR stock at the rate of one $125 bond for each share. The bonds would be secured by the stock received and 5% NYC refunding and improvement mortgage bonds, series C.

MP Reorganization Case Awaits Court Decision

The U. S. District Court at St. Louis has concluded hearings on the latest reorganization plan for the Missouri Pacific—a plan that would give common stockholders a share in the reorganized company.

This latest revamp plan was approved by the ICC last August (*Railway Age*, August 9, page 14). It would give control of the MP to holders of old-company preferred stock, but holders of old-company common would receive one share of new Class B common for each 20 shares of their old stock.

Effective date of the new plan would be as of January 1, 1955. Alleghany Corporation, which has opposed previous reorganization plans, favors the present one.

If Judge Moore of the district court hands down a favorable decision, the present plan will be submitted to a vote by security holders. The plan was agreed upon previously by most of the major interests in the reorganization proceeding.

Illinois Commission OK's $1 Million CA&E Dividend

The Illinois Commerce Commission has authorized the Chicago, Aurora & Elgin to distribute $999,848 to its stockholders. The funds are a part of some $3 million realized from sale of company right of way to the state and the Chicago Transit Authority in connection with a superhighway and rapid transit line project.

The road's commuters obtained an injunction to block the distribution of $2.5 million of the $3.1 million realized from the sale on the grounds that the project forced termination of CA&E service at Forest Park, Ill., and that the funds should be set aside for provision of facilities to restore through service to the Chicago "Loop" district. The funds have been "frozen" by the injunction and action of the commission since last February (*Railway Age*, February 22, page 75).

The now-authorized distribution, which amounts to about $2 a share, will be paid this month. No decision has been reached with regard to disposition of remaining funds from the sale. Litigation over the commuter-sponsored court order restraining the company from distributing the funds was ended by the commission order and dismissal of an appeal to the Illinois Supreme Court.

Claremont & Concord. — *Takes Over B&M Branch.*—Effective December 17, the C&C, a newly organized company, took over ownership and began operation of the former Boston & Maine line between Concord, N.H., and Claremont Junction, approximately 63.5 miles. (*Railway Age*, July 12, page 66; August 16, page 10). Along with ownership of the branch line, the B&M has turned over to the new company a gasoline-powered rail car and trailer coach, a 44-ton diesel switching locomotive, a snowplow and a caboose —all renovated at the B&M's Concord shops.

Illinois-Missouri Terminal.—*Purchase of IT.*—The ICC has authorized the Toledo, Peoria & Western to intervene in the case wherein this road seeks to purchase the Illinois Terminal (*Railway Age*, November 29, page 2). The TP&W, which had sought to purchase the IT (*Railway Age*, August 23, page 8), said in its petition that the proposed purchase would violate the anti-trust laws by changing the IT into "a feeder line dominated by the monopolistic agreement" of the roads which formed Illinois-Missouri. The petition stated that the TP&W would oppose the purchase and is still "ready and willing" to negotiate for acquisition of the IT.

Louisville & Nashville-Nashville, Chattanooga & St. Louis.—*Merger.*—L&N directors have approved a plan for merger with the NC&StL on the basis of exchange of 1½ L&N common shares ($50 par) for each $100-par common share of the NC&StL (*Railway Age*, November 29, page 12). L&N shareholders, at a special meeting next February 28 in Louisville, Ky., will be asked to approve the merger plan and increase the L&N's authorized common stock. The proposed merger will be submitted to NC&StL stockholders for their approval, after which application will be filed for ICC authorization and approval.

St. Louis-San Francisco. — *Acquisition.*—To purchase from the Illinois Central 9.22 miles of IC line between Winfield, Ala., and Brilliant for $50,000. The IC had previously applied to the ICC to abandon this segment. The Frisco would operate the line to serve two coal mines.

Investment Publications

[The surveys listed herein are for the most part prepared by financial houses for the information of their customers. Knowing that many such surveys contain valuable information, *Railway Age* lists them as a service to its readers, but assumes no responsibility for facts or opinions which they may contain bearing upon the attractiveness of specific securities.]

Fahnestock & Co., 65 Broadway, New York 6.

Canadian Pacific Railway Co. Weekly Review, November 8.

Outlook for Railroad Stocks. Weekly Review, December 13.

Smith, Barney & Co., 14 Wall St., New York 5.

Louisville & Nashville Railroad Company. Common Stock. Railroad Bulletin No. 181. November 16.

Missouri Pacific Railroad System. Interest Payments. Railroad Bulletins Nos. 179, October 25, and 180, November 9.

A Railroad Common Stock Comparison (Chesapeake & Ohio and New York, Chicago & St. Louis). Railroad Bulletin No. 182, December 9.

Western Maryland Railway Company. Railroad Bulletin No. 178, October 25.

Vilas & Hickey, 49 Wall st., New York 5.

The Baltimore & Ohio R.R. Co. November 3.

Common Stocks of Eastern Railroads. November 18.

INSIDE VIEW of the magnetic drum which is the main memory unit of International Business Machines Corporation's "650" electronic data processing machine. The machine's "memory" can recall, in under three one-thousandths of a second, any of 20,000 numbers stored in it. Several of the machines have been ordered by railroads. This unit is in the Boston office of the John Hancock Life Insurance Company.

Securities

Bangor & Aroostook.—*Stock Dividend.*—B&A directors have voted a stock dividend of 5%, payable next April 1 to stockholders of record March 7. In a statement accompanying announcement of the proposed payment, which is subject to ICC approval, the directors said the dividend will "give some tangible recognition" to "considerable sums . . . plowed back into the railroad in recent years to put it into first class condition."

Dividends Declared

BANGOR & AROOSTOOK.—common, 5% stock dividend, payable April 1, 1955, to holders of record March 7, subject to approval of ICC.

MAINE CENTRAL.—6% prior preferred, $1.50, quarterly, payable January 3 to holders of record December 24.

PIEDMONT & NORTHERN.—$1, quarterly; extra, $2; both paid December 20 to holders of record December 10.

Security Price Averages

	Dec. 21	Prev. Week	Last Year
Average price of 20 representative railway stocks	85.73	81.23	58.49
Average price of 20 representative railway bonds	97.46	97.41	90.96

Applications

NEW YORK, CHICAGO & ST. LOUIS.—To issue and sell $36,000,000 of 35-year income debentures to provide the major portion of $37,259,509 needed by April 1, 1955, to redeem, at $110 per share, plus the $1.50 per share quarterly dividend, all its 6% series A cumulative preferred stock, consisting of 334,166 $100-par shares. The debentures, to be sold by competitive bidding, would be dated January 1, 1955, and would bear interest from that date at a rate to be determined by the bidding.

NORTHERN PACIFIC.—To assume liability for $3,968,000 of equipment trust certificates to finance in part the following diesel-electric units costing an estimated $4,952,020:

Description and Builder	Estimated Unit Cost
1 1,700-hp freight unit (Electro-Motive Division, General Motors Corporation)	$703,000
14 1,750-hp road-switching units (Electro-Motive)	166,000
8 1,200-hp switching units (Electro-Motive)	109,000
6 1,600-hp road-switching units (American Locomotive Company)	159,900
1 900-hp switching locomotive (Alco)	93,500

The certificates, to be dated January 18, 1955, would mature in 15 annual installments of $264,000 each beginning January 18, 1956. They would be sold by competitive bidding, the interest rate to be determined by such bidding.

SOUTHERN PACIFIC.—To assume liability for $8,910,000 of equipment trust certificates to finance in part the following diesel-electric units and automobile cars costing an estimated $11,906,473.

Description and Builder	Estimated Unit Cost
15 1,750-hp freight units (Electro-Motive Division, General Motors Corporation)	$223,742
13 1,750-hp freight units (Electro-Motive)	214,174
18 1,750-hp freight units (Electro-Motive)	176,567
335 50-ton automobile cars (Southern Pacific Equipment Company)	7,725

The certificates, dated December 1, 1954, would mature in 15 annual installments of $594,000 each, beginning December 1, 1955. They would be sold by competitive bidding, the interest rate to be determined by such bidding.

Authorizations

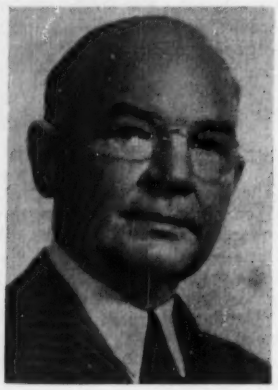
GREAT NORTHERN.—To assume liability for $8,880,000 of equipment trust certificates to finance in part 1,000 box cars, five dome-lounge cars and 12 dome coaches costing an estimated $11,108,500 (*Railway Age*, November 29, page 13). Division 4 approved sale of the certificates at 2 5/8% interest for 99.2793—the bid of Salomon Bros. & Hutzler and three associates—which will make the annual cost of the proceeds to the railroad approximately 2.74%. The certificates were reoffered to the public at prices yielding from 1.25 to 2.8%, according to maturity.

KANSAS CITY SOUTHERN.—To issue $50,000,000 of first mortgage 30-year bonds, series C, to finance in part redemption of $37,889,000 of 4% series A bonds and $13,154,000 of 3½% series B bonds (*Railway Age*, November 15, page 16). Division 4 approved sale of the new bonds at an interest rate of 3¼% for 101.14—the bid of the First Boston Corporation and Halsey, Stuart & Co. and 128 associates—which will make the annual cost of the proceeds to the railroad approximately 3.19%. The bonds were reoffered to the public at 101.93.

SAN MANUEL ARIZONA.—To issue a promissory note for $4,000,000 and 40,000 shares of $100-par capital stock to the San Manuel Copper Corporation as reimbursement for construction of a 29.5-mile line connecting the San Manuel copper mine site near Tiger, Ariz., with the line of the Southern Pacific near Hayden (*Railway Age*, November 15, page 74). The note, to mature February 20, 1973, is secured by a first mortgage on the railroad property. Division 4 in the same proceeding authorized the SMA to acquire and operate the line, now under construction, and authorized control of the railroad by the Magma Copper Company through SMC, its wholly owned subsidiary.

Railway Officers

William Thomas Rice



Norman Call

W. T. Rice Elected RF&P President

Succeeds Norman Call, who retires January 1 after 53 years with road, including 23 as president

William Thomas Rice, general superintendent of the Richmond, Fredericksburg & Potomac at Richmond, Va., has been elected president, effective January 1. Mr. Rice will succeed Norman Call, who has retired, at his own request, as president and a member of the board of directors, also effective January 1.

The RF&P's new president was born in Hague, Va., June 13, 1912. In August 1934, shortly after graduating from Virginia Polytechnic Institute (B.S. in C.E.), he entered railroad service as an engineering assistant on the Pennsylvania's Williamsport division at Elmira, N.Y. After Army service in World War II, Mr. Rice joined the RF&P in February 1946 as a track supervisor at Fredericksburg, Va.

From September 1946 to July 1949 the RF&P's new chief executive was superintendent of Potomac yard at Alexandria, Va. For the next two years he was RF&P superintendent at Richmond. In May 1951 Mr. Rice became general superintendent.

Mr. Call, born March 29, 1880, at Richmond, began his business career in 1897 as a clerk in the purchasing department of the Richmond Locomotive Works. He joined the RF&P in 1901 as secretary to the president, serving in that capacity to 1910, when he became secretary of the railroad. From 1917 to 1920 he was assistant to the president. In 1920 he was elected vice-president and secretary. Mr. Call retained those positions until 1932, when he was elected president.

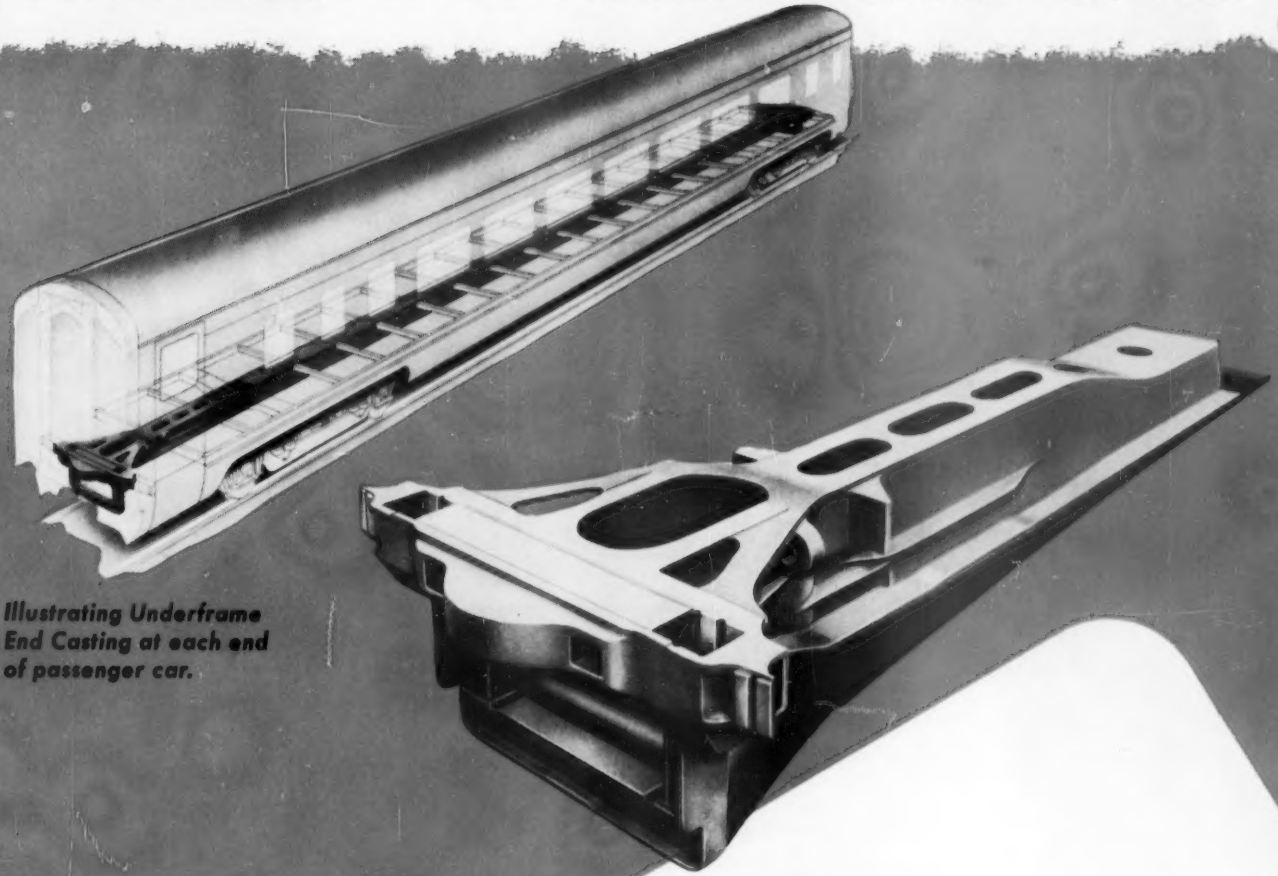
BALTIMORE & OHIO.—James R. Crook, traveling freight agent at Winston-Salem, N. C., has been appointed district freight representative at Jacksonville, Fla., succeeding **William D. Wilbur,** who has been named division freight agent at Indianapolis.

CANADIAN NATIONAL. — J. Ross Bannerman, regional supervisor of safety at Winnipeg, has been appointed superintendent of safety at Montreal, succeeding **J. P. Wadsworth,** deceased.

E. Edwards, assistant regional manager, real estate department, Central region at Toronto, has been ap-

(Continued on page 39)

For Greater Strength, Safety and Elimination of Maintenance Costs!



Illustrating Underframe End Casting at each end of passenger car.

Commonwealth One-Piece Underframe End Castings

COMMONWEALTH Cast Steel Underframe Ends at both ends of the car provide the simplest and strongest construction for this vital part of the *passenger car* body. Their inherent strength and ruggedness assure greater passenger safety, minimize car damage in event of collision, and eliminate maintenance expense.

These Underframe Ends incorporate in a one-piece casting unusually strong draft gear pockets and coupler carriers and, if desired, may be provided with body bolsters cast integral.

For strong, better-built passenger cars, specify COMMONWEALTH One-Piece Underframe End Castings.

GENERAL STEEL CASTINGS

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✓ Ship by Rail
✓ Travel by Rail

fast modern trains go far with

• To keep your diesels whizzing by . . . to lower your operating costs, think of Standard Oil.

Quality lubrication is important in keeping expensive equipment running like new. And when you get Standard, you *know* you get quality.

Standard's diesel fuels and oils make no compromise: they're skillfully refined, engineered and thoroughly tested to assure top performance. And then, Standard's strategically located refineries and service facilities blanket the railroad heart of America.

For speed, sure deliveries, reliable economy—be modern: go far, go fast, go Standard.

STANDARD OIL COMPANY
(Indiana)

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Current Publications

BOOKS

TRANSPORTATION AND THE GROWTH OF CITIES, by Harlan W. Gilmore. 170 pages. Free Press, Glencoe, Ill. $3.

Social scientists have long recognized that communities differ markedly from each other. Consequently, they have recognized that, if they were to formulate scientific generalizations regarding community patterns, they must be able to classify communities into types or categories. It is the central argument of this book that community classification, to be realistic, must be done on the basis of a combination of economic and social function. The framework on which this analysis is based is that of transportation systems. It is the belief of the author that transportation systems are a better key to socio-economic systems than social scientists have recognized.

•

TRUCKS . . . TROUBLE . . . AND TRIUMPH: THE NORWALK TRUCK LINE COMPANY, by Wayne G. Broehl, Jr. 226 pages, illustrations, tables, charts. Prentice-Hall, Inc., 70 Fifth ave., New York 11. $5.50.

The Norwalk Truck Line Company has been in the forefront of the trucking industry's growth from the beginning. One of the country's largest motor carriers of property, the company annually sends its drivers almost 30 million miles in the process of moving over one million tons of commodities.

Those interested in specific management problems and policies will find in this book analytical material covering every phase of motor carrier operation. Federal and state regulations are discussed at length, as is the relationship of the motor carrier to its competitors, particularly with regard to railroads.

•

LOCOMOTIVES OF THE WESTERN PACIFIC, by Fred A. Stindt and Guy Dunscomb. 140 pages, illustrations, drawings. Fred Stindt, 1414 Aberdeen dr., San Mateo, Cal. $4.

For the historian this book contains a brief history of the Western Pacific and its subsidiary lines; a roster containing information on every steam locomotive, with additional interesting information on certain engines; chronological age, acquisition and disposition lists of locomotives; a roster of steam engines of subsidiary lines; a list of foreign line locomotives used; a roster of diesel locomotives; a two-color map of the system, and other interesting information. For the rail fan there are 25 full-page-size pictures illustrating locomotives of each of the 25 different classes owned, plus 50 additional pictures of engines of special interest, and 46 pictures of trains. For the model builder there are official mechanical department side-view drawings of each of the 25 classes of steam engines complete with detailed specifications.

FILM

BLACK DIAMONDS. 16 mm, 27 min, sound, color. Anthracite Information Bureau, 380 Madison ave., New York 17. Available on loan, free.

Produced by the Anthracite Industry Council with cooperation of the Pennsylvania State College of Mineral Industries, this film, with narration by Lowell Thomas, shows the mining, processing and distribution of hard coal, and the newest developments in automatic heating with anthracite. The importance of coal and railroads in development of the northeastern seaboard and the role of eastern railroads, are stressed, as the film shows how swift and economical rail transportation affords anthracite its advantages of dependability and low cost in its marketing area. The picture also points up the necessity for conserving the nation's natural fuel resources and the value of our tremendous coal reserves to national and regional welfare.

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VERTICAL STEAM GENERATOR

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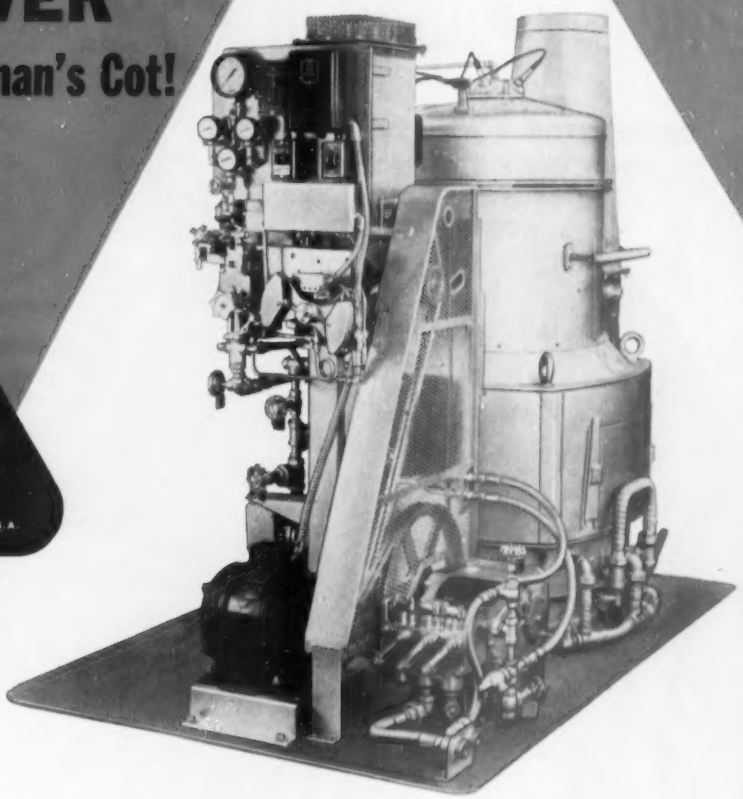

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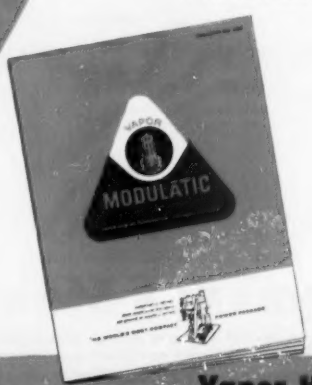

To the many railroads now using Vapor railroad-type steam generators in laundries, shops, stations, or offices . . . to all railroads operating Diesels equipped with reliable Vapor steam generators . . . Vapor announces the new Modulātic—a special development for industrial needs based upon these same unique, use-proved principles.

Compact enough to meet exacting space limitations, and without requiring the full housing of railroad-type units, the new Modulātic provides equal efficiency at lower cost—plus integral pressure-atomized fuel injection. It's complete . . . automatic . . . efficient . . . oil or gas fired . . . easily installed or moved. Sizes 18 to 160 h.p. Single or multiple installation. New Bulletin No. 586 is just off the press. Ask for it.

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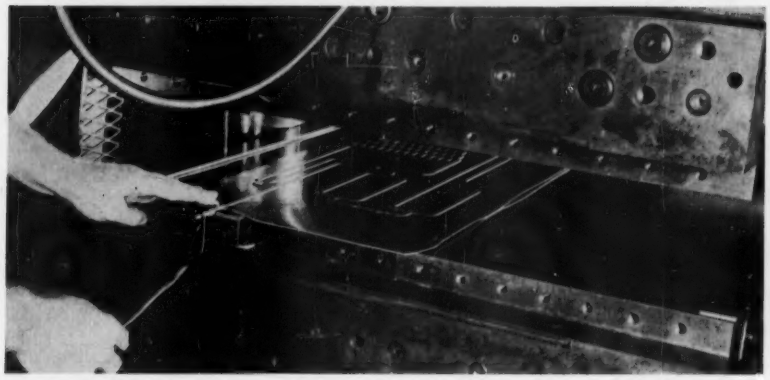
What's New in Products



Homogeneous Sheet Heat Exchanger

A current development in metals promises, according to the manufacturer, to change current design and production techniques in every industry dealing with temperature control. The process is said to make it possible to create any pattern of tubing within a single homogeneous sheet of metal such as aluminum, copper, various alloys, and stainless steel.

The process, a modification of the old art of roll bonding, has already been proved commercially in the refrigeration industry. There, according to the manufacturer, it has reduced retooling costs for new evaporator plates from $50,000 to $50; cut retooling time from a usual six months to one week; lowered end product and production costs, and at the same time, increased efficiency of the plates by more than 25 per cent.

Heat transfer throughout the sheet is the same as that of the metal used. With copper, there is 100 per cent conductivity; with aluminum there is about 60 percent conductivity. There is complete grain growth with the bonding metal. The bond is as strong as the original metal.

Any pattern that can be drawn on a piece of paper can be reproduced as tubing within a metal sheet. As many as six sheets of metal can be bonded at one time. Complicated parallel or multiple tubes, running at right angles in two or more layers, can be made with complete efficiency. It is said to be impossible for tubes within the plates to develop leaks. The manufacturer states that with the process air conditioning units can be made smaller and at lower cost. Railroad refrigerator cars could be cooled by evaporator plates, in which the coolant is stored and conducted with no chance for leakage and with less parts, it is said.

Since the sheet and tube are homogeneous, they provide maximum heat conductivity. Methods of braze welding or soldering pipes to an evaporator plate create air spaces between tube and plate, reducing conductivity.

Elongation is 4 to 12 times original length through rolling after bonding. Normal thickness is 0.060 in. plate for refrigerators and 0.030 in. total thickness for sides of tube. Plates up to 36 in. by 110 in. can be fabricated.

Cost reduction opportunities with the new process are said to lie mainly in the radical design changes it makes possible. It is possible to build the header or accumulator right into the design. This eliminates the cost of a separate attachment and of brazed, stop-welded bonds. The evaporator back as well as a secondary circuit plate can be incorporated into the design and contains parts of the refrigerating system. *Metals Division, Olin Mathieson Chemical Corporation, 505 Park ave., New York 22, N.Y.* •

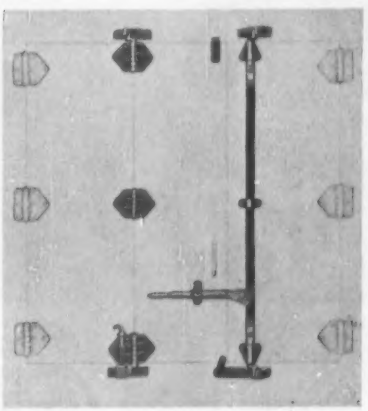
New Labelling Plastic

A new laminated plastic is now available for various industrial labelling applications. Called Gravoflex, it is said to be flexible enough to be bent by hand; scratchproof, weatherproof, and stainproof; and tough, but not brittle.

Gravoflex, being a sandwich material, can be engraved with the help of any pantograph machine. Lettering cut through the top layer will stand out permanently on a contrasting background.

No paint is required and marking will not be distorted by bending or forming. The material also can be stamped or embossed. Gravoflex can be cut with scissors, paper cutter, or metal shear. Edges will not chip, and do not need beveling, according to the manufacturer. It can be nailed without predrilling, and can also be stitched or stapled.

Gravoflex is available in sheets, strips, or cut name plates in thicknesses of 1/32 in., 1/16 in., or ⅛ in., and in black surface with white core, or white surface with red core. *Hermes Plastics, Inc., 13-19 University pl., New York 3* •



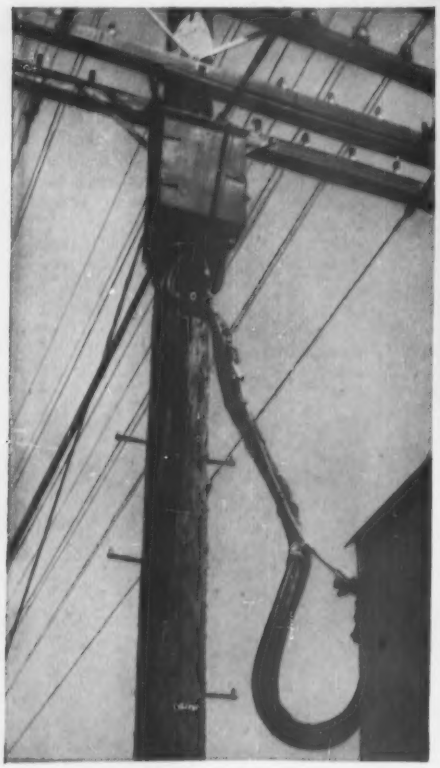
Three-Way Reefer Door Operator

Adjustable to either a 2-ft, 4-ft, or 6-ft opening, this door operator is said to provide a simple, efficient means of opening, closing and locking a 6-ft refrigerator car door. An unusual arrangement enables the full 6-ft opening to be accomplished within the platform clearance requirements of the standard double refrigerator door in use since 1909. The patented center cam arrangement and the vertical door operator have a positive locking action insuring a tight seal for all three sections of the door.

All doors are substantially supported, with no tracks or floating fixtures to be serviced. Insulation is tightly sealed by door keepers and hinges. Inside faces of all doors may be cleaned from the loading platform with doors opened. *W. H. Miner, Inc., Chicago* •

On the Feather River Route of the Western Pacific.

These Okonite-Okoprene Signal Cables installed on Western Pacific right-of-way are continuously exposed to weather extremes.



WESTERN PACIFIC selects OKONITE SIGNAL CABLES for all-weather dependability

The Western Pacific Railroad, in company with over 100 Class I railroads, relies on Okonite-Okoprene cables for dependable, all-weather service on their signal systems. On the San Francisco-Stockton Division, Western Pacific uses Okonite-Okoprene multiple conductor signal cables as laterals from track to signals. This is another example of the vital jobs capably handled by Okonite cables in railroad service.

Okonite insulation, made of natural Up-River Fine Para Rubber, has proved itself in service for over 75 years. It is always vulcanized in a continuous metal mold to assure a uniform cure. Perfect centering of the conductor is assured by the strip-insulating process. Okoprene, an exclusive Okonite neoprene formulation, protects the cable against weather extremes, alkalies, moisture and acids, as well as mechanical damage and most oils.

Okonite cables have proved themselves in service under the most difficult operating conditions for every important railroad use. Write for Bulletin RA 1078 for information on Okonite cables for railroad use to The Okonite Company, Passaic, N. J.

OKONITE insulated cables

2628

How to Promote Growth of Traffic

One of the most stimulating and provocative expressions on transportation that has come along in some time is the text of a speech made at American University on November 9 by Lewis C. Burwell, Jr., vice-president of the Flying Tiger Line (an air freight carrier). Mr. Burwell, in his address, applied his active imagination to the problem of getting a lot more business and more prosperity for air transport (especially the freight end of it). And he did not allow himself to be inhibited by aversion to government assistance.

He predicted that, in the next ten years, air line passenger travel will double; air cargo ton-miles will increase 700 per cent; air charter movement of people and things will increase 1,200 per cent. As far as the railroads are concerned—the most he conceded was that "the surface carriers' gross earnings will not decline." In other words, in a rapidly growing country, none of the increase in traffic is coming the railroads' way—or so Mr. Burwell thinks.

The speaker based his ebullient optimism, in part, on economics. For one thing, he made clear his realization of the basic principle that: "Transportation is either a producer or consumer. If it is not properly used; if it does not perform the vital function of exchange of trade, its stand-by cost is fearful." He does not expect any part of the air transport industry to be providing "stand-by" capacity for anybody or anything. Quite the contrary—he bubbled over with specific ideas for doing away with all the slack capacity existing anywhere in the air hauling business, "the empty one-way trips, the unused load capacity, the waiting times and positioning costs."

It isn't economics, however, but politics upon which Mr. Burwell appears to be depending, primarily, for a major part of the growth in air transportation. For instance, he says: "When we remember the vital importance of a strong air transport system to national defense . . . , it is entirely proper that the Department of Defense do all in its power to become a bigger air line customer." Mr. Burwell is also looking to arbitrary government action—not relative economy—to give the air lines practically all of the first-class mail, followed by practically all of the parcel post. He also asks the taxpayers to develop a "proper airplane" which will fly freight at lower costs.

Mr. Burwell wants the losing international air routes to be put on a straight subsidy basis so that profits from profitable routes will not be reduced to pay these subsidies. And, finally, he insists that "unless and until the air line industry shows excess profits in the true sense of the word, there is no justification" for a user tax on air lines, to defray the cost of government-provided facilities. And there you have it! If the taxpayers will kindly ante up to the required degree, then there will be big days ahead for the air lines.

Mr. Burwell would not have to be reminded that the program he favors is heavily socialistic. But he could well reply that he is in good company; that there are mighty few industries, today, that do not have either one or both hands in Uncle Sam's pocket.

Some of this paper's readers appear to believe that we have lost our enthusiasm for the principles of free enterprise. We have not done so in the slightest. We still believe that all economic services (including mail, main highways, airports and waterways) should be provided by private enterprise, and that all of them should be equally self-supporting and equally taxed. The trend of government action and popular opinion, however, is overwhelmingly *away from* these principles—not a return to them. When the country's last effective political leader of the "right"—the late Senator Taft—abandoned his opposition to the St. Lawrence Seaway, this paper concluded that the tide of socialism was not likely going to be turned back until it had run its course; and that, for economic survival, it would be necessary for all business to learn to live under increased socialism.

In any event, would it not be most helpful if more railroad leaders were publicly preaching a course looking toward greater growth and prosperity for the railroads—as Mr. Burwell has done for his branch of the transportation business—but, of course, not following his example in asking for promotional contributions from the public treasury? The railroads can prosper without such aid if they are given freedom in pricing their product and are allowed to quit playing Santa Claus by providing a lot of community services at the expense of their paying customers and stockholders; and if they are relieved of discriminatory taxation, which rival agencies escape entirely. But any such outline of a course of railroad action, to be most effective, should be soundly optimistic and aggressive—not merely defensive. The best defense, still, is the offensive.

APPRENTICE training class at work in Santa Fe shop school room, San Bernardino, Cal.

Santa Fe Values Its Apprentices

This road now has about 875 in training at 37 schools in 35 cities—Many present officers among 6,500 graduates

The Santa Fe, which initiated apprentice training as early as 1884, now has approximately 875 apprentices attending 37 schools in 35 cities, including two schools each at Chicago and San Bernardino, Cal. The total number of apprentice supervisors is 21, there being three each at Topeka, Kan., Alburquerque, N. M., and San Bernardino. Apprentice schools are conducted by shop supervisors at three shops and by a single instructor at smaller points.

Since adoption of apprentice training on the Santa Fe, more than 6,500 apprentices have graduated. Evidence of the value of the apprentice system is afforded by the fact that the general manager, mechanical department, all of his mechanical assistants, all mechanical superintendents, all but two master mechanics, all but two shop superintendents and most of the shop supervisors are graduates of this program. Moreover, a number of graduates are holding responsible positions on other railroads.

The Santa Fe also trains student brakemen and student firemen, but instruction in this field is not as intensified as with the shopmen. Still another "school" on the railroad is devoted to training telegraph apprentices. This school, organized in 1904 in the communications department, is directed by the superintendent of communications.

Exams Every Three Months

Telegraph apprentices sign a two-year agreement and take an examination every three months. In addition, there is a special six-months plan under which the company qualifies apprentices who have attended a regular telegraph school. At present there are 218 apprentices in service in communications, with an average monthly promotion of about 10 per cent.

During the earlier years of apprentice training on the Santa Fe there was no formal head of the system and

the head mechanical department officer locally at each point had full responsibility for instructing apprentices at that point. Apprentices were moved from job to job by the supervisor and were expected to learn their trade by working with the various mechanics and by asking questions of those mechanics who were willing to pass on their knowledge. Training in shop mathematics, blueprint reading and mechanical drawing was left to be obtained in any manner possible at the option of the apprentice, as for example in YMCA night schools and other educational facilities.

Formal Instruction Begun

In 1901, John Purcell (who later became chief mechanical officer) was master mechanic at Ft. Madison, Iowa, and, realizing the need for additional training for future mechanics on the railroad, decided to help the situation locally. He personally employed an instructor from the local high to teach the apprentices shop mechanics and mechanical drawing.

From these beginnings and development at various points, the need of a unified and directed course of training was recognized. In 1907, an apprentice system was organized for the entire Santa Fe system under the direction of F. W. Thomas, who had previously been engineer of tests. Mr. Thomas was assisted by John H. Linn, who had years of experience in teaching and working with teachers.

The apprentice system, as developed, consists of a central head and various instructors in the several shops. The success of the system has been largely due to the work of the apprentice instructors. By agreement between the heads of the mechanical department and the various labor organizations concerned, a general schedule of work for the various crafts is outlined. It then becomes the apprentice instructors' duty to coordinate this general schedule to the types of work available at the particular shop involved. Also, it is the instructors' duty to see that the apprentices are moved so that the local schedule is followed.

The apprentice instructor is rated slightly below a gang foreman. He is not held responsible for shop output but only to see that the apprentice gets the desired experience and learns how to do the work. It is unfortunate that all instructors do not know everything about everything, but when this condition is recognized the instructor and the apprentice ask questions in regard to the particular operation involved until the correct answer is obtained.

Occasional strife occurs between the instructor, who is concerned with moving an apprentice for additional experience, and the foreman who needs the apprentice for output. Without being arbitrary over a few days, the instructor wins such arguments, as the need for experience is recognized by all. The apprentice instructor through his close personal contact with the apprentices becomes familiar with their personalities, habits, home life and hobbies and is often able to make suggestions which lead not only to better mechanics in the shops but also better citizens of the community.

The apprentice instructor also has an important part in keeping apprentice training up-to-date. He informs the department head that the apprentice should know more about certain subjects; that questions are being asked about this or that; that some procedures are obsolete and should be changed. From the railroad's viewpoint the apprentice instructor position is an excellent training ground for future supervisors.

CHECKING the work of apprentice operator at a perforator in the communications department, Los Angeles.

Regular apprentices serve a four-year apprenticeship while helper and special apprentices serve three years. When the railroads were working ten hours a day a regular apprenticeship consisted of 12,000 hours or 25 ten-hour days per month. This was divided into eight periods of 1,500 hours each and a raise was granted at the end of each period. With the 8-hour day the apprenticeship was cut to 9,280 hours which corresponded to eight periods of 145 8-hour days. When the 40-hour week was adopted the length of each period was reduced to 130 days.

Six Month's Trial

The first six months of the apprentice's time is a probationary period. If suitable aptitude is not shown during this time, the apprentice is released from service. Each month an apprentice board meeting is held. With the master mechanic, shop superintendent or general foreman acting as chairman, and the apprentice instructors and all foremen who have apprentices working under them as members of the committee, each apprentice is discussed. At these meetings, it is decided if the ap-

prentice should be allowed to complete his probationary period and what steps should be taken to improve each one. Attendance, punctuality, safety, ability, ability to follow instructions, cooperation with other employees and leadership qualifications are among items discussed and outside activities, such as health, hobbies and family relationships, also come up at meetings.

School Four Hours per Week

During his apprenticeship each apprentice (excluding special apprentices) is required to attend school four hours a week. This school time may be either during or after regular working hours. If school is after regular hours, the apprentice is paid his regular hourly rate for attending school.

The subjects taught in school include mechanical and freehand drawing, sketching, shop arithmetic, the simpler elements of mechanics, and company and federal requirements governing the maintenance of equipment. Various text books and manufacturers' literature are also used. The school work for each craft varies to produce the maximum benefit in the particular trade. Assignment of questions in school is coordinated with shop work. That is, when the apprentice is doing welding in the shop, he is working on welding questions in school. Other examples: Car inspection, with the AAR Code of Rules; Alco locomotives, with Alco literature; air brakes with air brake questions; machine work, with machine questions and tools.

Individual Instruction

Much of the success of the apprentice-training program is due to individual instruction. When the instructor is in the shop his entire attention is directed to the one person he is working with at that particular time. The same thing applies in schoolroom work. Apprentices are hired as openings develop and they start school when hired. Each apprentice develops as fast as he is capable and is not influenced by the rate of progress of the other apprentices.

Copies of apprentice board meeting proceedings and a monthly report showing days served and type of work performed by each apprentice are forwarded to a central office so that a check on the training and progress is available.

Constant revision of both shop and school work is necessary to keep up to date. The shop work has changed greatly with the adoption of diesel locomotives, lightweight air-conditioned passenger cars and all-steel freight cars.

For the same reasons the school work has changed almost as much. Questions on shop work as performed a few years ago are no longer satisfactory. The increased volume and type of work performed required an entirely new course of training for electrical apprentices.

Formerly, almost every large point had an active apprentice club, but military service has interrupted the progress of many persons during their apprenticeships, increasing the average age of apprentices, and this, with added home responsibilities and such distractions as automobiles, radio and television, has reduced interest in apprentice club activities.

Benchmarks and Yardsticks

THE MORE A MAN can find out about himself—especially what makes him do the things he does, or prevents him from doing the things he would like to do, or ought to do—the greater control he will have over himself. And, of course, the more one can learn about the motive power behind different kinds of behavior by other people, the more capable he will be as a leader.

But it comes hard to get dependable information of this kind. A competent geologist can study a landscape a while; and then give a pretty complete and convincing report on everything that has occurred to that section of the earth's surface during the past several million years. But the same geologist would have a hard time to give an equally satisfactory explanation of why he came to be a geologist, instead of a lawyer; or why he is a Republican and a monogamist; or why he smokes more than he believes he should.

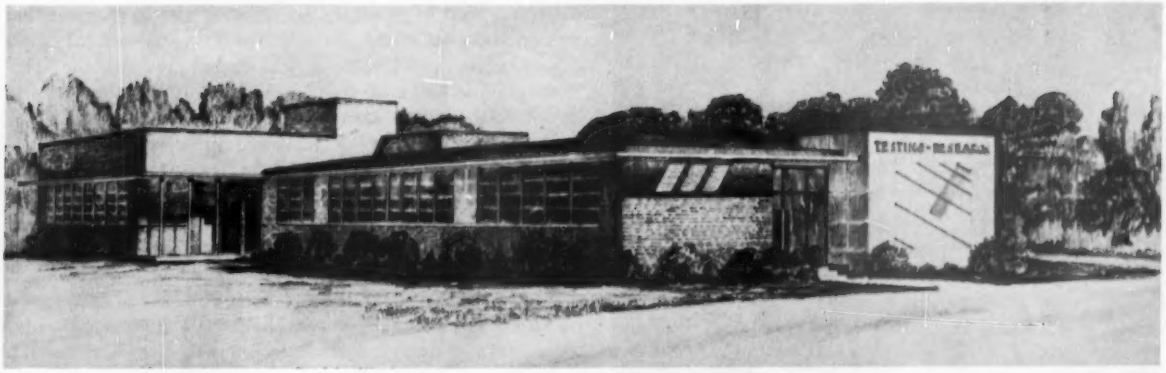
It is, mostly, the philosophers—rather than the scientists—who have (or believe they have) the answers as to the "why" or the "ought to" of human conduct. The trouble with philosophers—there is lots of disagreement among them; which is not hard to understand, because most philosophical assertions are not subject to experimental proof. Philosophies prosper—not necessarily in ratio to their soundness, but also in measure of the skill with which they are propounded; and, often, in proportion to the inexperience of the audience which is addressed (e.g., most of the disciples of Karl Marx). If one knows of only one philosophy, then that is probably the one he will believe.

Science probably never will be able to answer all important questions about people—to the degree that it is able to answer intricate questions in chemistry and electronics. But science could answer a lot more questions about people than it does now, if scientists were able to put in the time and the money on people that they have, say, in developing nuclear weapons and airplane motors.

Some of the most informative and suggestive writing to be found anywhere on the subject of science's ignorance about people—and how its overemphasis on the study of things might be profitably corrected—has been done by the great biologist, Alexis Carrel, who died ten years ago. A posthumous book of his, entitled "Reflections on Life" has just been published. An earlier work, "Man the Unknown" (1953), has become a classic.

Both books are clearly written—quite nontechnical. If you have any interest at all in what makes people tick, then (your reporter believes) you will find either book as exciting as a who-done-it—even though you may not agree with the writer more than about 80 per cent of the time.

J.G.L.



New Frisco Test Laboratory

Early next year the Frisco test department will move into new quarters that are both functional and attractive. The completely air-conditioned building, located at Springfield, Mo., will house ten laboratories to handle the following classification of work:

1. General Analytical Laboratory for all types of chemical analysis excepting oil tests.

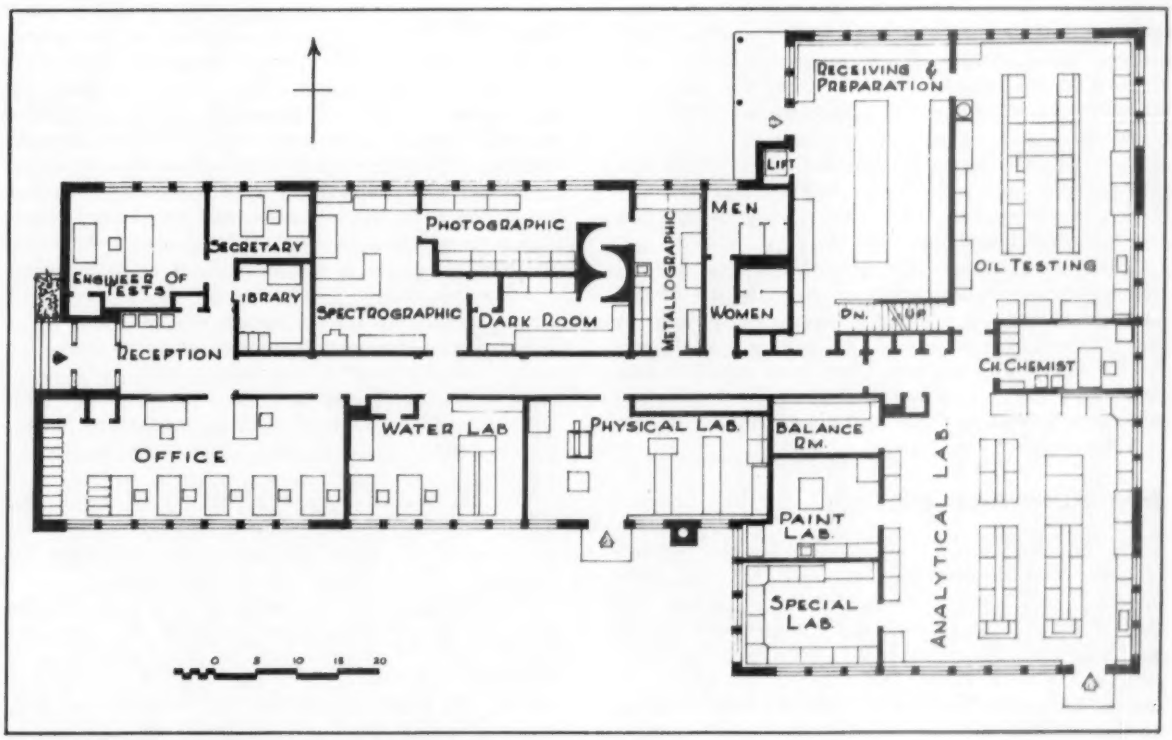
2. Oil Testing Laboratory where all lubricating oil tests other than spectrographic are performed, and where samples for the spectrographic tests are prepared.

3. Physical Chemistry Laboratory for corrosion tests, analytical distillations, determination of heat values of fuel and similar work.

4. Paint Laboratory for accelerated tests of paint which also contains a super-centrifuge for separation of paint pigment and vehicles and a small forced draft spray booth which is to be employed for the preparation of test panels.

5. Physical Testing Laboratory containing a 200,000-lb capacity universal testing machine for making compressive, tensile and bend tests of metals and concrete. It will also have equipment for measuring the hardness and impact strength of metals and for making other tests of physical properties of materials.

6. Spectrographic Laboratory with the latest instrumentation for analyzing diesel crankcase oil for wear



INTERIOR arrangement of the new Frisco laboratory.

MAX HERZOG, Frisco engineer of tests, looking over the building during construction.

metal and dust content and for a wide range of other analyses.

7. Darkroom for processing spectrographic plates and for development and printing of other photographs taken in connection with test work.

8. Photographic Laboratory to serve as a "studio" for the photography of parts which have broken in railroad service and for taking other photographs to illustrate test reports. Finish processing of prints, such as drying, trimming and mounting, will be done in this room.

9. Metallographic Laboratory for preparing metal specimens for study under the microscope, and for the taking of photomicrographs.

10. Water Laboratory for the analysis of water, and for control of chemical treatment applied to diesel locomotive cooling systems, steam generators, boilers and air-conditioning systems. This laboratory will also contain office space for the Water Engineer and the water inspectors.

There will also be an Analytical Balance Room containing the delicate and sensitive balances for weighings needed in chemical analysis. This balance room opens into the general analytical laboratory.

Near the entrances to the general analytical and oil testing laboratories are safety showers for use should an accident result in a man's clothing catching fire. A heavy deluge of water started by pulling a chain will quickly extinguish such fires. There is an exit door with panic hardware in one corner of the general analytical laboratory so that personnel will not be trapped in case of a fire or other accident.

Same System Heats and Cools

The building includes office space for the engineer of tests, chief chemist, chief material inspector, wheel inspector, and employees engaged in secretarial and clerical work. It also has a small library with shelves and filing cases for reference books and technical literature, and a desk where personnel can do library research. A reception room is provided for visitors calling on Testing Department personnel.

The building will be fully air-conditioned, with cooled air supplied to all offices and laboratories in summer and warm air in winter through the same system of ducts and grills. In addition to temperature control, the spectrographic laboratory will have humidity control to provide the constant relative humidity of 50 per cent which the Frisco staff considers necessary for accurate spectrographic work.

The building has a full basement, divided into several large rooms. One contains the air-conditioning machinery, furnace, hot water heater, and a water softener. Another room will contain shelving for supplies and will be used as a stock room. There is a large open space which will be used for miscellaneous testing work which cannot be done conveniently in the first-floor laboratories.

All storage of inactive reference files and records will be in the basement. Active files will be in the general office, where the clerical force and inspectors have their desks. A small elevator running between first floor and basement will facilitate the handling of supplies and materials.

On the north side of the building is a loading and unloading dock from which a door opens into the Sample Receiving and Preparation Room. All samples and materials for test, as well as supplies, will be brought into this room where they will be processed before distribution to the appropriate laboratories for testing or handling. This receiving room will contain equipment for the sectioning and preparation of metal and other samples and materials received for test.

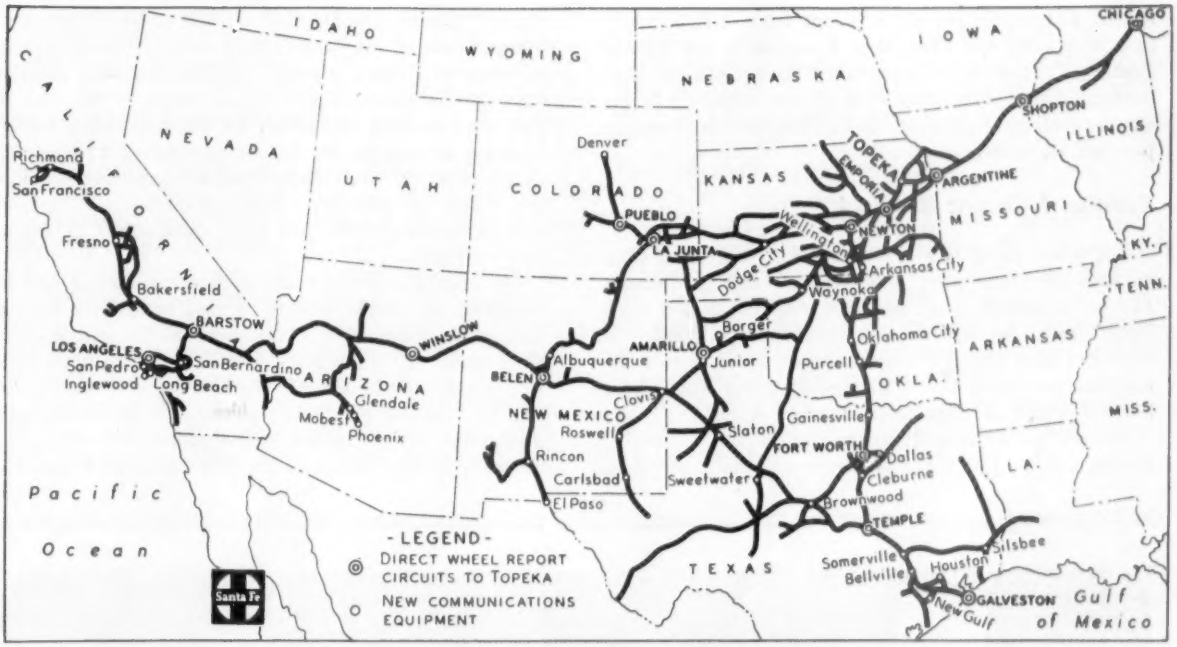
Much Special Equipment

Among special facilities are an automatic electric still for producing distilled water which will be piped to various laboratories through plastic tubing, and an automatic vacuum pump to produce vacuum in lines piped to all laboratories. The general analytical laboratory will have an automatic glassware washer to speed up the cleaning of analytical glassware, and the oil laboratory will have a small vapor degreaser for automatic cleaning of oil sample cans and oily glassware. Compressed air will be distributed at two pressures to laboratories where such air is needed, and the physical chemistry room will have connections for oxygen at both low and high pressures. A source of direct electric current at adjustable voltage is provided for outlets in laboratories in which this type of current will be used.

A stairway gives access through a penthouse to the roof of the building. The automatic water still is located in this penthouse, and the roof includes a deck on which will be mounted stainless steel racks for exposing paint test panels and other materials to the weather.

The darkroom is connected to the spectrographic laboratory and the photographic laboratory by maze entrances which allow free entry and exit from the darkroom without danger of admitting light.

All laboratories will be equipped with work benches and built-in storage cabinets supplied by Kawaunee Manufacturing Company. Some of this furniture is of the Frisco's own design to fit special needs. The analytical and oil testing laboratories will contain four fume hoods in which chemical work giving off poisonous or dangerous vapors can be safely carried on.



NEW LINE CIRCUITS AND TELETYPE EQUIPMENT FOR . . .

Better Car Reporting on Santa Fe

Carrier equipment derives additional circuits from existing wire lines to handle wheel report and car accounting traffic in addition to regular message traffic

When the Santa Fe management decided to install a centralized machine car accounting system for the entire railroad, with headquarters at Topeka, Kan., about 20,459 miles of additional circuits were required between various points on the road, of which 3,138 miles were derived by duplex and 17,321 miles by the simple method of installing carrier ("wired radio") superimposed on existing line wires on the railroad pole line.

By using different frequencies in carrier equipment, three, four or even as many as 12 "channels" can be operated simultaneously over one line wire circuit. These additional circuits, as well as the Teletype equipment required, were engineered and installed by the communications department of the railroad. Forty new carrier circuits totaling 17,321 miles; physical circuits placed in duplex operation totaling 3,138 miles; and existing circuits used in the new wheel and car accounting system totaling 9,160 miles were placed in service.

The magnitude of the new communications facilities required can be grasped by realizing that the operations of the Santa Fe extend over 13,095 miles of road, and an average of 67,000 freight car movements are made daily, each of which must be reported promptly to Topeka. From there car movement reports are Teletyped to 64 Santa Fe traffic offices, providing up-to-the-minute information for shippers.

A wheel report, in the form of a Teletype message, arriving at Topeka operates a receiving page printer in the general telegraph office, and simultaneously operates a reperforator in the car accounting office. This reperforator punches a tape which feeds into a Remington-Rand tape-to-card machine which punches holes in a card, thereby recording the information pertinent to that car. One such card is punched for each car in the train as listed in the wheel report. The wheel report, received in page printer form in the general telegraph office, is tubed to the car accounting office to be used for car checking.

Supplementary Telegraphic Reports

Six types of telegraphic reports were designed to provide all information not included on wheel reports. These reports contain such information as cars set out and picked up at intermediate points, bad order cars set out, and interchange of cars with connecting railroads. These reports are usually filed at intermediate and local offices which do not originate wheel reports.

These supplemental reports are necessary because the wheel reports are prepared only at larger offices with sufficient volume to justify the installation of additional Teletype equipment and wheel report circuits. Supple-

mental telegraphic reports are sent from a local office to a relay telegraph office, then Teletyped to the Topeka general telegraph office where they are recived on page printers. These reports are torn off and delivered to the car accounting office where the information is manually punched on cards.

Additional Circuits Required

The adoption of this system required the installation of additional telegraph and Teletype circuits because (1) some existing circuits would not handle the additional traffic because they were already operating at capacity; and (2) if existing circuits could handle the machine car accounting traffic, other traffic would have to be deferred or transferred to other circuits.

To provide additional circuits for the car accounting system was not just a simple matter of installing enough carrier equipment or physical circuits to handle the new traffic. Some of the larger cities have a traffic volume sufficient to warrant separate circuits, but such circuits from smaller offices would be idle much of the time if they were devoted exclusively to car accounting traffic. Separate circuits to handle car accounting traffic from all offices would be inefficient and economically prohibitive. Thus car accounting traffic is handled in part on multiple traffic circuits, and from some offices on exclusive circuits.

The general superintendent of communications had to decide which circuits were to be used exclusively for car accounting traffic, and which were to be shared with other traffic. To reach this decision, he relied upon traffic studies made by his own department, and upon those made by the car service depaartment, from which estimates were made concerning the nature and volume of traffic to be handled under the new centralized machine

RUBBER SLABS are applied between rails and to ends of ties. Elsewhere at crossing the wearing surface consists of an asphalt mix.

Here's a Rubber Highway Crossing

. . . ON THE ERIE AT AKRON

Vehicular roadways at railway-highway grade crossings must meet exacting requirements under difficult conditions. They must resist extreme punishment while presenting a smooth, unbroken surface which is economical to maintain. Various materials are used for this purpose —wood, concrete, asphalt, cast iron and even second-hand railroad rails—and now rubber has been added to the list.

What is reported to be the first rubber highway-railway grade crossing has been installed, appropriately, at the "rubber center" of the world—Akron, Ohio—where it is located at the intersection of Wilbeth road and the main line of the Erie.

In this crossing, the vehicular roadway between the rails consists of specially designed and molded rubber slabs measuring 36 by 59 in., which were supplied by the Goodyear Tire & Rubber Co. The slabs are installed with the long dimension transverse with the track. They are a little more than 3 in. thick, including a sheet of heavy-gage steel sandwiched within each slab. The slabs rest on heavy treated wood furring placed on top of the crossties, and each slab is fastened down by 12-in. lag screws extending through metal and rubber grommets. Metal ramps at the ends of the crossing protect it from dragging equipment.

The ends of each slab for installation between the

car accounting system. These estimates were the basis for determining the number of separate and multiple-traffic circuits that would be required.

Direct Wheel Report Circuits

New circuits for this traffic were provided for on (1) new carrier channels; (2) existing carrier channels from which existing traffic could be transferred to other channels; (3) existing channels on which car accounting traffic and other traffic could be carried jointly; and (4) new physical circuits, mostly short runs. The majority of the new car accounting traffic is carried on carrier channels; using those already in service and 40 new channels provided for this service.

Nineteen direct circuits handle wheel reports between 15 major cities and Topeka. Eight of these wheel report circuits are new, seven were existing exclusive wheel circuits, and four were joint circuits now used only for wheels.

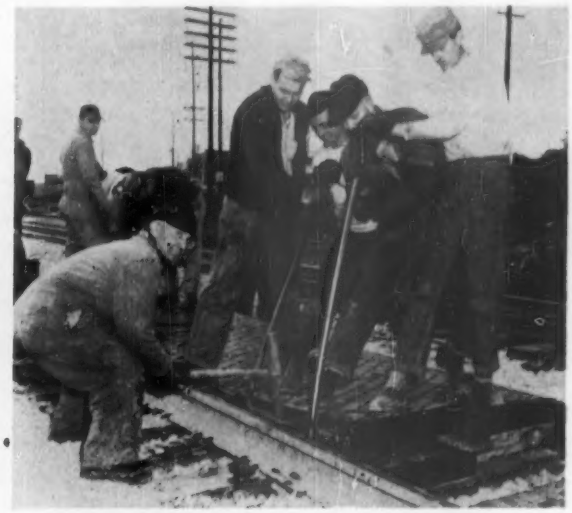
The following three cities have been equipped with more than one direct circuit: Los Angeles, 3; Amarillo, Tex., 2; and Argentine, Kan., 2.

Additional Teletype Equipment

Besides the new carrier equipment required for the car accounting system, the communications department installed 54 sending Teletypes, 48 receiving page printers, 101 transmitter-distributors, 107 reperforators, and 7 non-typing reperforators. Sixty-eight carrier terminals were also installed. The new equipment was installed in offices in 40 cities on the Santa Fe system.

The planning and installation of the communications equipment was under the supervision of the general superintendent of communications.

ONE END of slab for installation between the rails is placed against one rail after which the tapered . . .

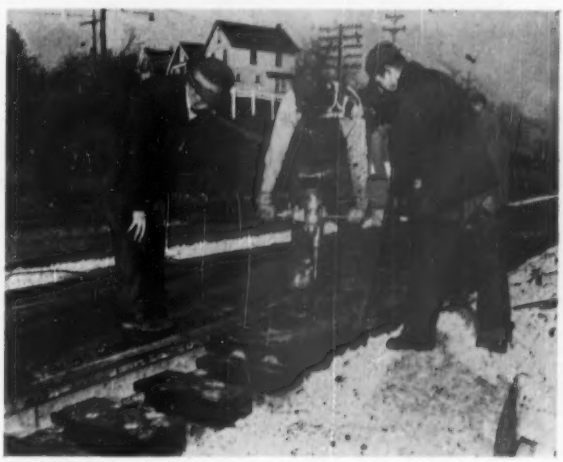


. . . FLANGE at the other end is sprung into place against web of rail to form a water-tight fit.

rails are constructed with tapered flanges along the bottom side. These flanges fit under the rail head and contact the web, and when sprung into place are reported to form a watertight fit against the rail. At the same time, the dimensions of the flanges and the slabs themselves are such that flangeways are formed along the gage sides of the rails. Smaller rubber slabs, placed outside the rails, extend to the ends of the ties.

Special wear and skid-resistant rubber compounds were used in making the slabs. The wearing surfaces are built with a diamond design molded into the rubber, which is similar to the design used on the treads of Goodyear tires.

This new type of surfacing is considered to have possibilities not only for use at grade crossings but also in station areas where passengers and baggage trucks must cross one or more sets of tracks, and in factory receiving and shipping areas where similar conditions are encountered.



FASTENINGS for rubber slabs consist of 12-in. lag screws installed through metal and rubber grommets.

Letters from Readers

Economics of Inland Waterways—and Railroads

YOUNGSTOWN, OHIO

TO THE EDITOR:

Are you aware that the Ohio Valley Improvement Association has a drive on for $1 billion in Ohio River subsidies to rebuild the locks and dams?

The writer who is publicizing the project says the river moves 60,000,000 tons per year in 20,000-ton tows, at $100 per tow-hour. It looks to me that the taxpayer is being asked to put up 67¢ per ton for depreciation, plus 25¢ for interest on the resulting federal debt. The operation of the locks and dams costs another 33¢, so there must be an out-and-out subsidy of $1.25 per ton, which after income taxes and excise taxes, might be $2.50 or more. After all, if steel mills shift from income-tax-paying transportation investment to "free" investment, it is a cost upon the rest of us.

As if this $1.25 per ton subsidy were not enough to "justify" the need for a billion government dollars, the OVIA then tries to rejustify it by computing savings, at the rate of $100 per tow-hour—fewer locks, fewer hours.

Now, if I can count straight, a tow will produce 200,000 ton-miles per hour, with a resulting direct cost (at $100) of 0.05 cents per ton-mile. The taxpayer is asked for 10¢ every time the tow-boat operator spends 1¢.

Actually, of course, the whole thing does not bear analysis because everyone knows barge costs are not 0.05¢ per ton-mile.

On the other hand, the railroads are losing friends fast in Ohio by crying crocodile tears. The Public Utility Commission has just ordered one railroad to restore the only daytime trains operating between Toledo and Columbus (both major cities). The railroad pleads gross injustice, and promises losses of $118,000 per year.

Any railroad man knows that a modern RDC car could run empty all year on this run and not cost that much, including depreciation and interest. Is it any wonder that buses, automobiles and airlines get the business when the only train runs at 2 a.m., and the railroad produces such illogical data to make a legal case? Without passengers, just where can a railroad gain friends? E. T.

Rail Mail Sticker?

ROCKVILLE CENTRE, N. Y.

TO THE EDITOR:

Wouldn't it be helpful if friends of the railroads used a distinctively colored sticker or rubber stamp on envelopes put in the mail, carrying some such wording as: "Rail Mail," or "Save Taxpayers' Money—Handle by Rail"?

REGULAR READER

Here's a horn with a musical tone that is pleasing on short range and still can be heard a long way off

● For town and country—specify Westinghouse Air Brake E-2B Pneuphonic Horns.

They sound a three-note chord that simulates the steam whistle. Three variations are available to suit individual preference—low, medium or high-pitched.

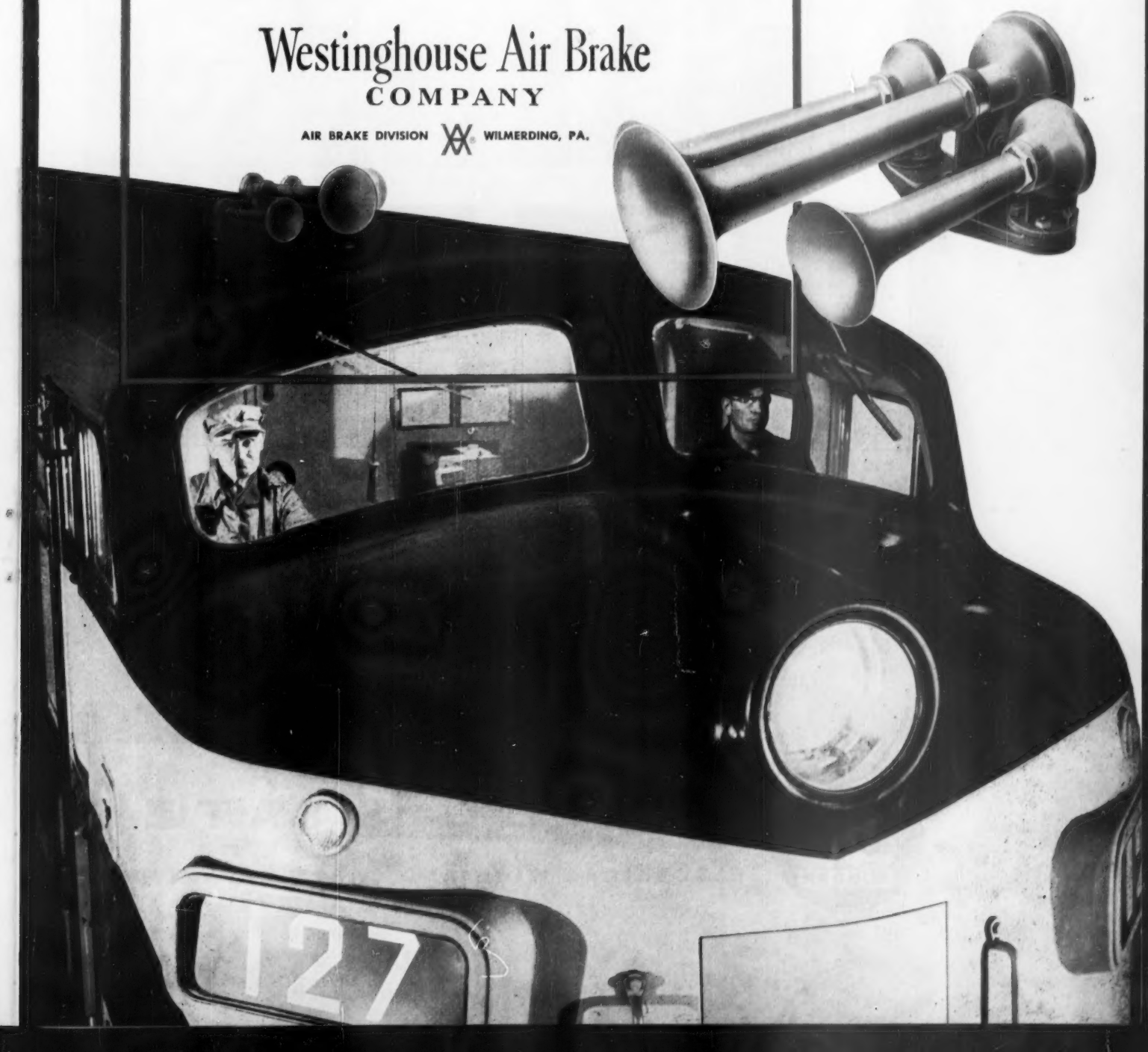
E-2B Horns are completely interchangeable on the present mounting base.

NEW MOVIE AVAILABLE

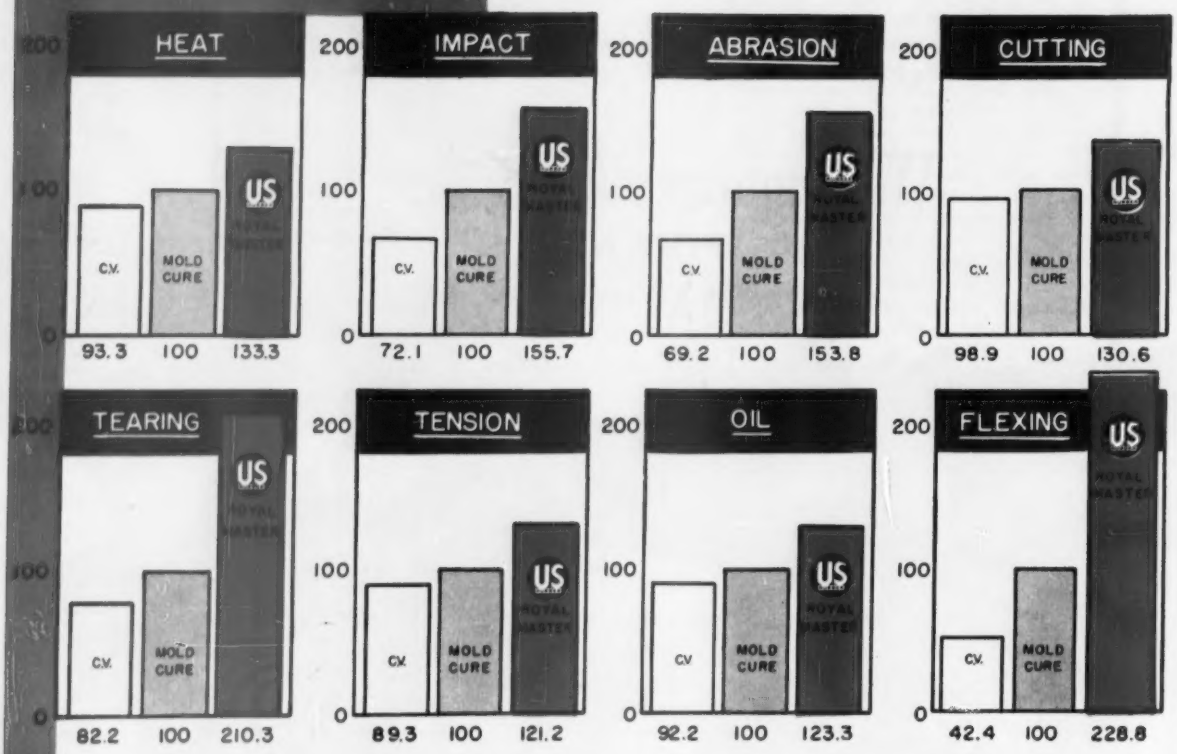
entitled, *"AT THIS MOMENT"*—showing a vivid story of modern railroad progress. Length 26 minutes, on 16 mm. color sound film. For use of film write: United World Films, Inc., 1445 Park Ave., New York or Association Films, Inc., 347 Madison Ave., New York.

Westinghouse Air Brake COMPANY

AIR BRAKE DIVISION WILMERDING, PA.



New U.S. ROYAL outperforms,



Comparative performance of portable cords related to major life factors.

Graphs illustrate the outstanding superiority of new U. S. Royal Master Cord—over the average of molded cords and the average of short-lived continuous vulcanized cords of other makes—on every major life factor. (Average of other molded cords is rated at 100%.)

US RUBBER

UNITED STATES

ELECTRICAL WIRE AND CABLE DEPARTMENT

MASTER portable cord *outlasts all others!*

Comparative tests show U. S. Royal Master gives $1.88 in value for every $1.00 spent — almost *twice* the service value of the average of other molded cords!

LOOK FOR THE NAME — U. S. ROYAL MASTER

Two years ago, "U. S." engineers began a *complete reexamination* of portable cord construction, service life, and the causes of cord failure.

Over 10,000 tests were made. More than a thousand cords of all leading makes, including our own famous U. S. Royal Cord, were analyzed, tested, and compared.

Every life factor was considered and carefully evaluated, alone and in its relation to overall cord performance and service life.

Backed by 64 years of experience in the manufacture of electrical wire and cable, U. S. Rubber engineers then translated their findings into an entirely new portable cord, designed to surpass any other previously made.

Extensive tests, both in the laboratory and in outside plant installations have proved this new portable cord startlingly superior in every respect!

New U. S. Royal Master is unquestionably the finest cord you can buy!

From every standpoint, as the charts at left illustrate, new U. S. Royal Master is a finer, more durable cord—actually gives 88% longer life than the average of competitive molded cords—far longer than *any* other cord—surpassing even a hypothetical cord incorporating the best features of all those tested!

Far greater value, too! In spite of almost doubled service life, this great new cord is in the same price category as other molded cords—giving you $1.88 in cord value for every cord $1.00!

Prove to yourself the outstanding superiority of new U. S. Royal Master Portable Cord — in both service life *and* economy! Get in touch with your "U. S." distributor today!

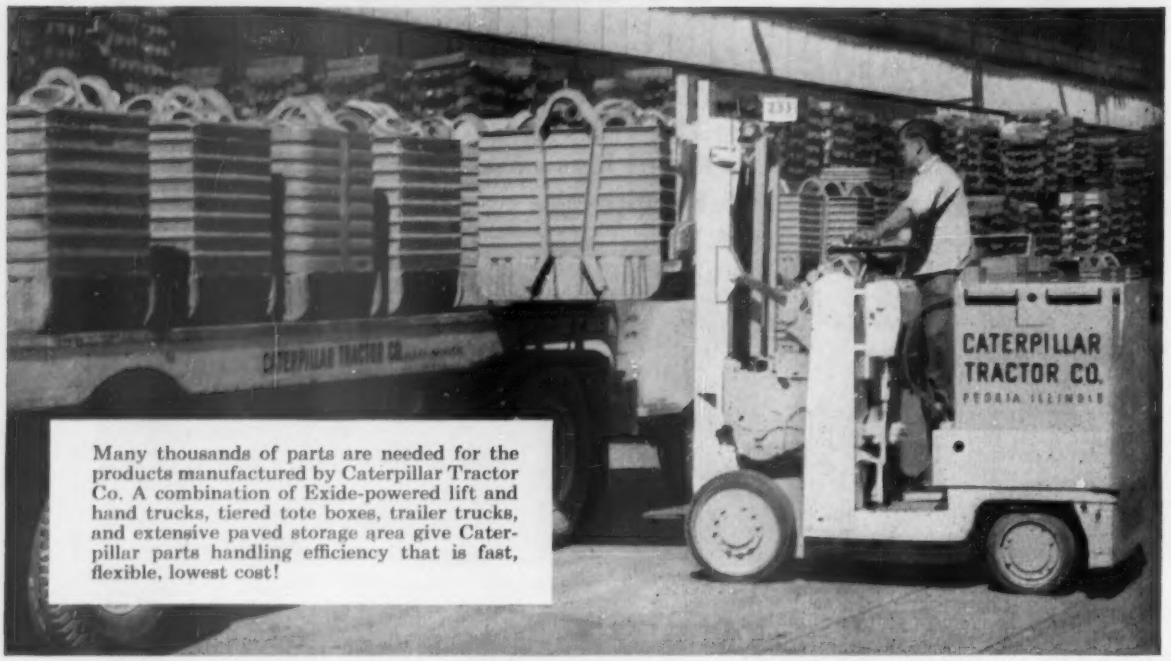
Approved by Underwriters' Laboratories, Inc.

RUBBER COMPANY

ROCKEFELLER CENTER, NEW YORK 20, N. Y.

GET FAST, SAFE HANDLING THROUGHOUT EACH SHIFT

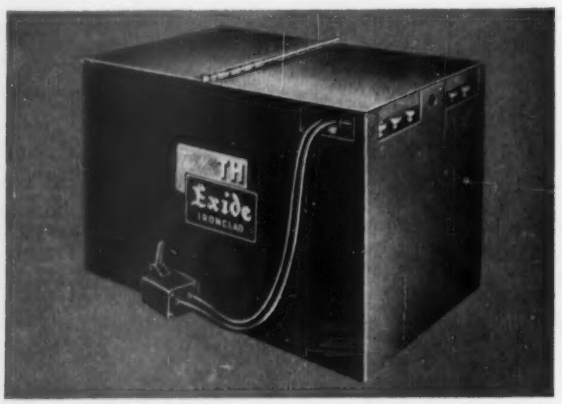
. . . with low cost Exide-Ironclad battery power!



Many thousands of parts are needed for the products manufactured by Caterpillar Tractor Co. A combination of Exide-powered lift and hand trucks, tiered tote boxes, trailer trucks, and extensive paved storage area give Caterpillar parts handling efficiency that is fast, flexible, lowest cost!

YOU GET split-second handling, uniform performance throughout each shift when electric trucks are powered by dependable Exide-Ironclads. Whether the load is light or heavy, Exide-Ironclads deliver power instantly, insuring smooth, rapid handling of materials. Your trucks handle as much pay load during the last hour as during the first . . . with no unscheduled down time. Lower costs for operation, maintenance and depreciation make Exide-Ironclads your best power buy—AT ANY PRICE!

THE POSITIVE PLATES are the heart of any battery. Only Exide uses a slotted tube construction. By use of tubes, more active material is exposed to the electrolyte, providing *greater power*. Also, more active material is retained, *giving longer working life*.



THE NEW THRIFTY HAULER! The improved industrial truck battery. *Non-oxidizing* plastic power tubes assure longest battery life, more capacity in the same space. For full details, call your Exide sales engineer—write for Form 1982 (Installation and Maintenance of Motive Power).

Your best power buy
. . . AT ANY PRICE!

Exide®
IRONCLAD® BATTERIES

Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa.

Railway Officers

(Continued from page 16)

pointed regional manager of that department.

CANADIAN PACIFIC. — **D. W. Allan,** general agent at Buffalo, has been transferred to Boston; **J. J. Trainor,** general agent at St. Louis, has been transferred to Buffalo; **J. J. Brown,** district passenger representative at Atlanta, has been appointed general agent at St. Louis, and **R. G. Williamson,** chief clerk at New York, has been named district passenger representative at Atlanta. **M. T. Jackson** has been appointed district passenger representative at Pittsburgh, succeeding **A. C. Nieman,** who has been named general agent at Minneapolis.

DENVER & RIO GRANDE WESTERN.—T. K. Earley, freight traffic manager—rates and divisions, has been appointed general freight traffic manager, with headquarters as before at Denver, succeeding **William M. Carey,** whose retirement was noted in *Railway Age* December 20. **J. G. Simpson,** general freight agent, has been appointed freight traffic manager; **A. G. Winter** and **C. H. Kerns** have been named general freight agents, and the position of assistant general freight agent—tariffs, formerly held by Mr. Winter, has been abolished.

Ben H. Decker, assistant to vice-president at Salt Lake City, has been named executive representative, effective January 1.

ERIE.—Wilbur W. Thoms, general agent at Los Angeles, has been promoted to assistant general freight agent at Youngstown, Ohio, effective January 1, succeeding **Donald S. Day,** who has resigned from that position to become assistant general traffic manager of Youngstown Sheet & Tube Co.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—John N. Neal, superintendent of terminals at Atlanta, Ga., has been appointed superintendent of the Atlanta division, succeeding W. A. Swindell, retired.

PENNSYLVANIA.— E. W. Prentiss, assistant engineer, bridges and buildings—Western region, who has been promoted to engineer, bridges and buildings, at Chicago (*Railway Age*, November 15, page 78).

Mr. Thoms' successor is **Kenneth O. Hemming,** who transfers from Peoria, Ill. **C. William Stroh,** commercial agent at Cincinnati, has been named general agent at Toledo, succeeding **Harry J. Spangenburg,** who retires December 31, after more than 41 years of service.

FRISCO.—L. R. Hall, assistant general freight agent, has been appointed general freight agent at St. Louis, succeeding **M. L. Lallinger,** retired. **W. S. Hartenberger** and **T. G. Schleef** have been named assistant general freight agents.

R. E. Bagent, superintendent of refrigerator service at Springfield, Mo., retired December 1 after 48 years of service.

ILLINOIS CENTRAL. — **Homer F. Wilson,** assistant superintendent of suburban passenger service, has been promoted to superintendent of suburban passenger service at Chicago.

INDIANA HARBOR BELT.—C. A. Bounds, auditor freight accounts at Gibson, Ind., retires January 1 after 43 years of service. Mr. Bounds' successor is **R. D. Smith,** assistant auditor freight accounts, who in turn is replaced by **C. J. Schafer.**

MONON. — **Frank A. Wisberg,** central traffic manager at Chicago, and **J. Leon Fortier,** assistant freight traffic manager there, will retire December 31.

NEW YORK CENTRAL.—F. W. Scully, trainmaster of the Boston & Albany at West Springfield, Mass., has been appointed assistant to general manager—labor relations at Boston, succeeding **T. A. Seymour,** who has been named acting assistant general manager—labor relations at Syracuse, N.Y. **F. H. Dugan,** assistant to general manager (management services) of the NYC at New York, succeeds Mr. Scully as trainmaster of the B&A at West Springfield. **F. A. Brazell** has been named supervisor of wage schedules at Syracuse.

PENNSYLVANIA.—J. W. Rathvon, trainmaster, Delmarva division, has been transferred to Fort Wayne, Ind., succeeding **D. D. Seibert.**

SOO LINE.—As *Railway Age* reported September 27, page 54, **Harold J. McKenna,** assistant freight traffic manager—rates, at Minneapolis, has been advanced to freight traffic manager—rates and divisions there. Mr.

Harold J. McKenna

McKenna, who joined the Soo Line in 1922 as clerk, was appointed assistant general freight agent in 1945. He was promoted to general freight agent in 1950 and to assistant freight traffic manager in 1952.

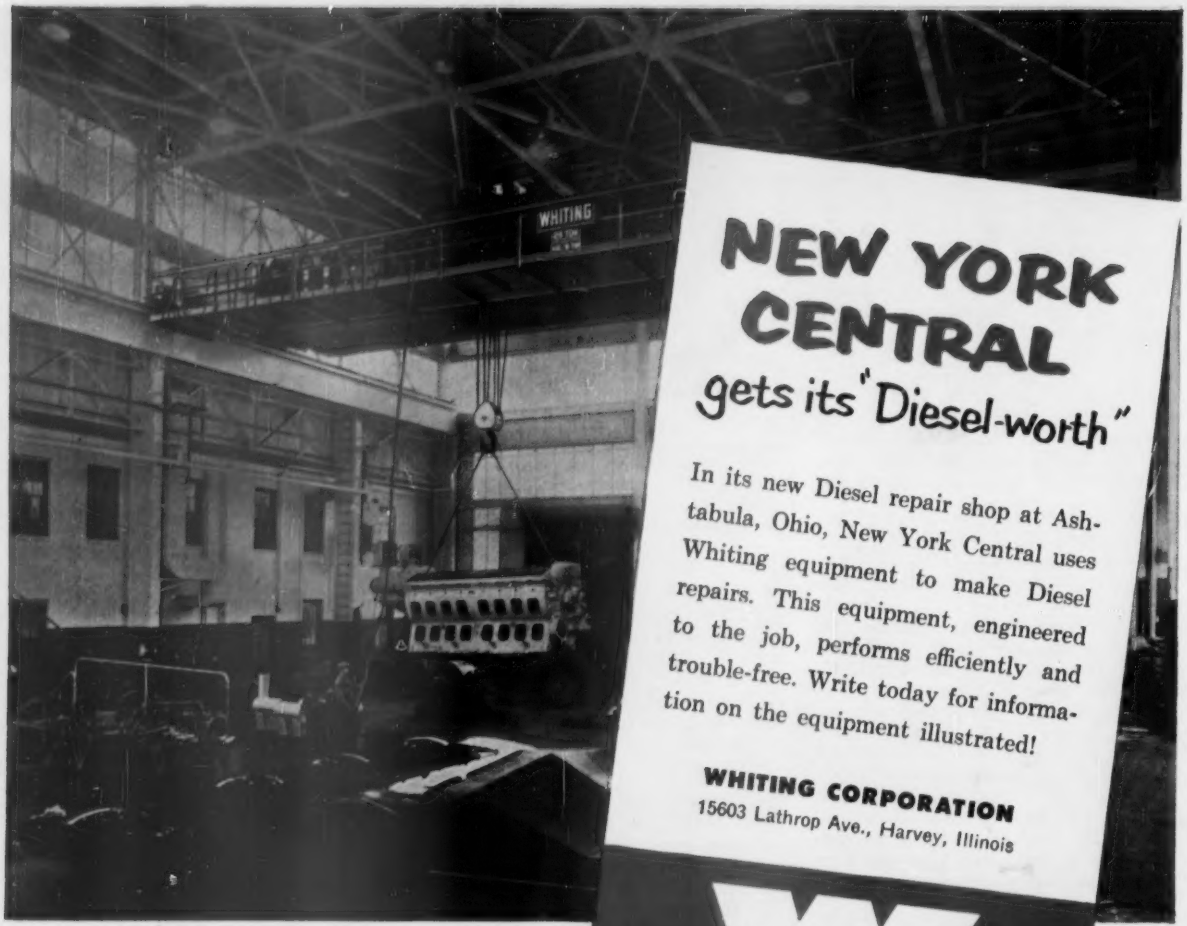
SOUTHERN.—Edgar W. Shirah, division freight agent, has been appointed assistant freight traffic manager, with headquarters remaining at Memphis, succeeding the late **Marc F. Sanderson. Elmore A. Evers,** district freight and passenger agent at Montgomery, Ala., has been named division freight agent at Memphis, to replace Mr. Shirah. **Challen E. Caskie,** commercial agent at New York, has been appointed district freight agent at Birmingham, succeeding **Frank E. Ardrey, Jr.,** who has been promoted to district freight and passenger agent at Montgomery.

OBITUARY

Earl W. Goslee, retired freight traffic manager of the **Gulf, Mobile & Ohio** at Los Angeles, died December 9 at Glendale, Cal.

John Redmond Marra, 61, vice-president—operations of the **Railway Express Agency,** died December 19 in Memorial Hospital, New York after a brief illness.

Marc F. Sanderson, assistant freight traffic manager of the **Southern** at Memphis, died November 26.



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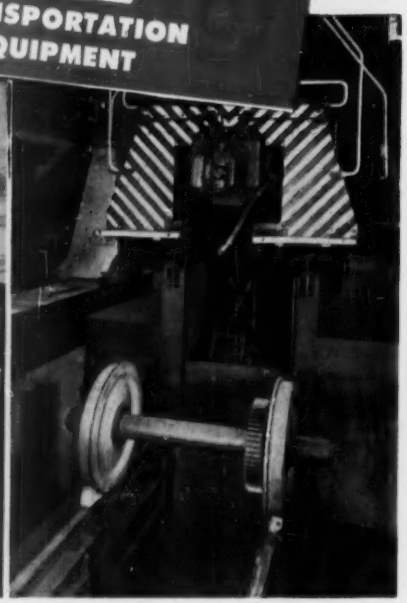

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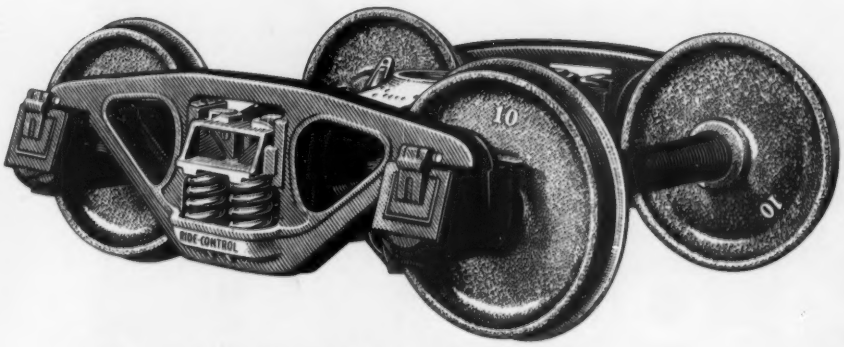
Trailiner flatcars receive greater utilization than practically any other freight cars in revenue service. The fleet of Trailiner cars will soon be enlarged with delivery of 100 new cars now on order. These new cars will also run on ASF Ride-Control Trucks—modified for use with roller bearings.

on the New Haven's "Iron Highway"



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